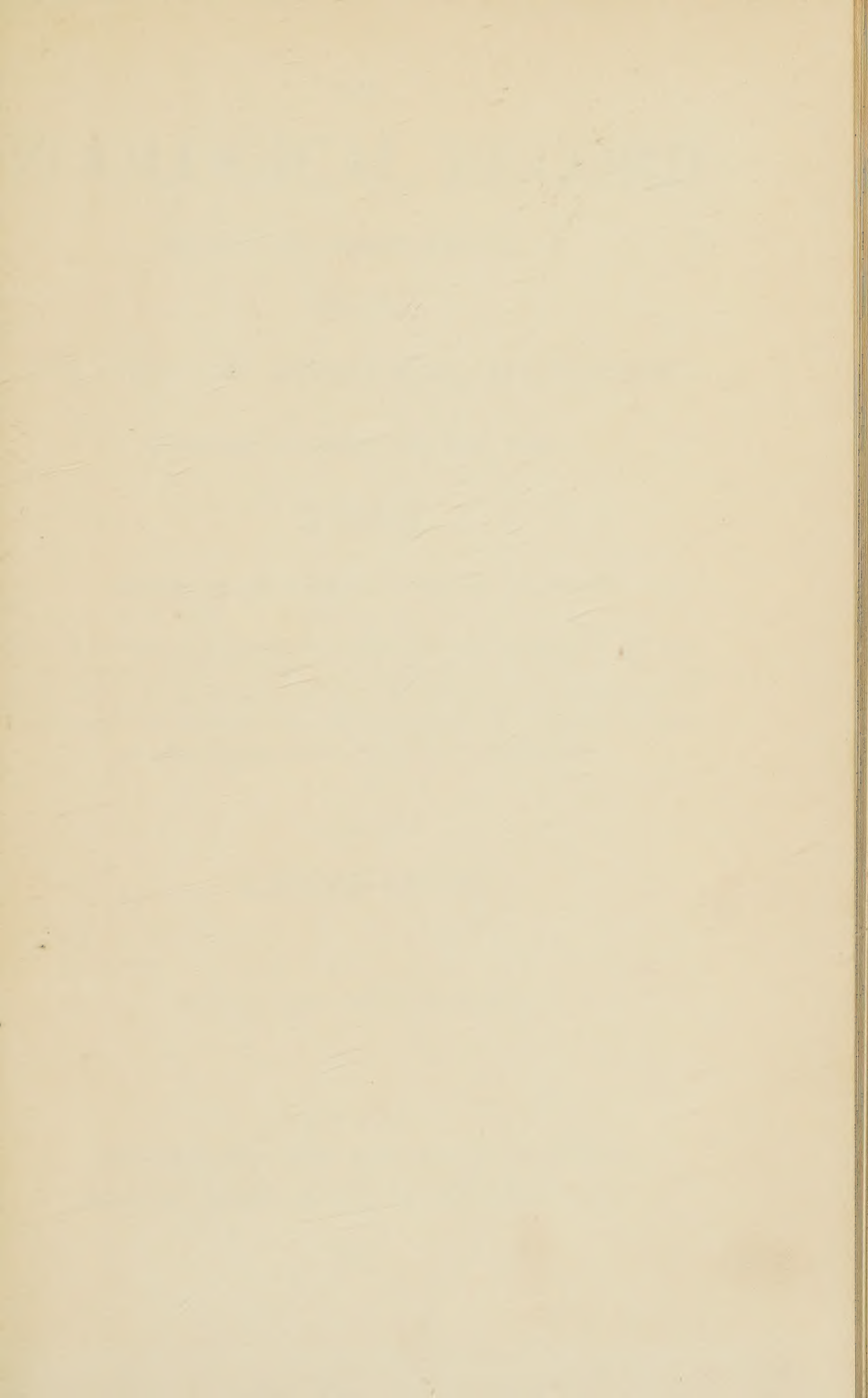





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1945

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EDITED BY

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THIS Volume, the eighty-second of the Zoological Record, deals mainly with the publications of 1945. It includes also those which, for various reasons, were not recorded in previous volumes, and particularly the literature which was issued in enemy and occupied countries during the war and has now reached England.

Articles in non-European languages, unless they are accompanied by an abstract in a European language, are not included. Articles and books which have not yet reached this country, but concerning which knowledge has been obtained from other sources, are recorded as far as the information permits. They will, if necessary, be dealt with more fully when they can be seen by the Recorders.

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# 2. PROTOZOA

ARRANGED BY

CECIL A. HOARE, D.Sc.  
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Papers dealing with Protozoa entirely from a medical or veterinary standpoint (clinical, therapeutic, etc.) are omitted, but notices of these will be found in *Tropical Diseases Bulletin* and *Veterinary Bulletin*.

## I.—TITLES

**1.—Opinion 1.** The meaning of the word "indication" in proviso (a) to Article 25 of the international code, as respects names published on, or before, 31st December 1930. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (10) 1944 pp. 75-84.

**2.—Opinion 2.** The nature of a systematic name. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (11) 1944 pp. 89-90.

**3.—Opinion 7.** On the interpretation of the expression "N.G., N.SP.," under Article 30 (a) of the International Code, as respects generic names published on, or before, 31st December 1930. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* 1 (16) 1945 pp. 140-144.

**4.—Opinion 3.** The status of publications dated 1758. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (12) 1944 pp. 97-100.

**5.—Opinion 8.** On the retention of "ii" or "i" in specific patronymic names, under Article 14, third paragraph, and Article 19 of the International Code. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (17) 1945 pp. 149-155.

**6.—Opinion 9.** The use of the name of a composite genus for a component part requiring a name, where the name so used was published on, or before, 31st December 1930. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (18) 1945 pp. 161-167.

**7.—Opinion 10.** The designation of genotypes for genera published with identical limits on, or before, 31st

December 1930. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 1 (19) 1945 pp. 173-177.

**8.—Opinion 135.** The suppression of the so-called "Erlangen List" of 1801. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 2 (30A) 1945 pp. 9-12.

**9.—Opinion 164.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the types of genera when two or more genera are united on taxonomic grounds. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 2 (34) 1945 pp. 349-354.

**10.—Opinion 168.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the names of genera based upon erroneously determined species. (*Opinion* supplementary to *Opinion* 65). *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 2 (38) 1945 pp. 413-426.

**11.—Opinion 191.** On the question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to students or colleagues constitutes "publication" within the meaning of proviso (a) to Article 25 of the International Code. *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 3 (10) 1945 pp. 131-134.

**12.—Opinion 192.** Suspension of the rules for *Nummulites* Lamarck, 1801 (Class Rhizopoda, Order Foraminifera). *Opinions & Declarations Internat. Comm. Zool. Nomencl.* London 3 (11) 1945 pp. 139-156.

**13.—Anon.** Experimental transmission of Kala-Azar to man. *J. Christian med. Assoc. India* 18 (5) 1943 p. 261.

**14.—Anon.** Triumph against malaria. *Brit. med. J.* London 1945 (4427) pp. 653-654.

**15.—Anon.** Terminology in malaria. *Brit. med. J.* 1945 (4385) p. 88.

16.—Anon. Filtering *Entamoeba histolytica* from water. Brit. med. J., London 1945 (4403) p. 757.

17.—Anon. *In vitro* growth of the malaria parasite. J. Amer. med. Assoc. 128 1945 p. 596.

18.—Anon. Malaria after demobilization. Lancet, London 249 1945 p. 49.

19.—Anon. Immunisation against protozoal diseases. Lancet, London 249 (6376) 1945 pp. 603-604.

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†*Hexadoridium magnificum* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithocampe* (*Lithocampanula*) *andersoni* sp. n., *L. andersoni* var. n. *paucisepta*. Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithochytris* (*Lithochytridium*) *robusta* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithomelissa* (*Acromelissa*) *crassiformis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithomelissa* (*Micromelissa*) *heroso*, *L. robusta* spp. n. Cretaceous, California, CAMPBELL & CLARK 120.—†*L. (Sethomelissa) armata* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithomitra* (*Lithomitrisa*) *formosa*, *L. regina*, spp. n., *L. regina* var. n., *angustata*, *subconica*, Cretaceous, California, CAMPBELL & CLARK 120.

†*Lithostrobos* (*Conostrobos*) *natlandi* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Phormocampe* (*Cyrotocorys*) *alamedaensis* sp. n., *P. alamedaensis* var. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Podocyrtis* (*Podocyrtecium*) *elegantissima* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Porodiscus* (*Discospira*) *rusti* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.—†*P. (Trematodiscus) cretaceus* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Rhopalosyringium* gen. n. *magnificum* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Saturnalis lateralis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Sethoconus* (*Conarachnium*) *mitchellensis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Sethoconus* (*Phlebarachnium*) *polycirtis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Sphaerostylus* (*Sphaerostylanthus*) *hastatus* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongasteriscus* (*Spongasteriscinus*) *ellipticus* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongodiscus* (*Spongodisculus*) *orbis*, *S. renillaeformis* spp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongolonche grandis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongosaturnalis* gen. n., *spiniferus* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongosaturninus* gen. n. *ellipticus* *S. latuformis*, *S. parvulus*, spp. n., *S. parvulus* var. n. *lateralispinosus* Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongotripus* (*Spongotripodiscus*) *morenoensis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Spongurus* (*Spongurantha*) *quadratus*, *S. occidentalis* spp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Staurodictya* (*Staurodictyon*) *rotulata* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Stichocapsa megalocephala*, *S. stocki* spp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Stichopilium* (*Stichopilidium*) *teslaense* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Stylodicta* (*Stylodictyon*) *insignis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Stylosphaera* (*Stylosphaerella*) *pusilla* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Stylotrochus* (*Stylotrochiscus*) *antiquus*, *S. polygonatus*, *hexagonus* spp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Theocampe* (*Theocampana*) *vanderhoofi* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.—†*T. (Theocamptra)* *latipunctata* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Theocapsa* (*Theocapsomma*) *amphora* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Theocyrtis* (*Theocorusa*) *blanchae* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Theosyringium jugosum* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Tricolocapsa* (*Tricolocapsium*) *granti* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Tricolocampe* (*Tricolocampium*) (?) *minuta* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

†*Tricolocampe* (*Tricolocamptra*) *altamontensis* sp. n. Cretaceous, California, CAMPBELL & CLARK 120.

## 2.—MASTIGOPHORA.

### A. PHYTOMASTIGINA.

#### (a) Chrysomonadina.

†*Ceratocorys veligera* nom. n. for *Michrystidium veligerum* Deflandre, Cretaceous, France, LEJEUNE-CARPENTIER 410.

†*Cornua aculeifera* sp. n., Cretaceous, California, DEFLANDRE 206.

†*Hystichosphaeridium major*, *H. elegantulum* spp. n. Cretaceous, France, LEJEUNE-CARPENTIER 407.

*Kephyrion bacilliforme*, *K. prismaticum*, *K. velatum*, *K. amphorula* spp. n. freshwater, Belgium, CONRAD 169.—*K. campanuliforme* sp. n. freshwater, Belgium, CONRAD 163.

*Oicomonas beauchampi* sp. n. from cultures of *Chlorella*, HOVASSE 335.

†*Vallacerta hannai* sp. n., Cretaceous, California, DEFLANDRE 206.

#### (b) Cryptomonadina.

*Cryptomonas obtorta* sp. n., freshwater Belgium, CONRAD 171.

## (c) Dinoflagellata.

*Amphidinium sphagnicolum* sp. n. freshwater, Belgium, CONRAD 173.—*A. mucicolum* sp. n. freshwater, Belgium, CONRAD 165.

†*Carnegiea willingtoniensis*, *C. coronata* spp. n. *C. cristata* var. n. *ornatissima* Tertiary, Belgium, CONRAD 160.

*Ceratium* (*Euceratium*) *aultii*, *C. carnegiei* spp. n., Pacific, GRAHAM & BRONIKOVSKY 294.—*C. (Poroceratium) bohmi* sp. n. Pacific, GRAHAM & BRONIKOVSKY 294.

*Ceratocorys alleni* sp. n., Marine, Mexico, OSORIO TAFALL 513.

*Chrysococcus areolatus*, *C. sculptus* spp. n. freshwater, Belgium, CONRAD 168.

†*Clericia circulifera*, *C. pulcherrima*, *C. striata*, *C. ansulata* spp. n. Tertiary, Belgium, CONRAD 160.

*Derepizis dilatata*, *D. tubulosa* spp. n. freshwater, Belgium, CONRAD 168.

*Dinobryon bavaricum* Imhof divided into *D. bavaricum typicum* and *D. bavaricum laevis* nomm. n. Switzerland, HUBER-PESTALOZZI 338.

*Diplosalis hananensis*, *D. pingi*, *D. excentrica*, spp. n., *D. lenticula* var. n. *lebouri* Chinese waters, NIE 503.

*Glenodinium*, life history, BALDI 33j.

†*Hystrichosphaera* ? *cristata* sp. n. Cretaceous, Belgium, CONRAD 162.

†*Outesia robusta* sp. n., *O. yberiensis* var. n. *reticulato-spinosa* Tertiary, Belgium, CONRAD 160.

†*Palaeoperidinium alatum*, *P. muriciforme*, *P. belatum*, *P. piriforme* spp. n. Cretaceous, Belgium, CONRAD 162.

*Parahistioneis pieltaini* sp. n. Marine, Mexico, OSORIO TAFALL 513.

*Peridinium woloszynskae* sp. n. Ostend, CONRAD 159.—†*P. subconicoides*, *P. damasii*, *P. galeatum* spp. n. Cretaceous, France, LEJEUNE-CARPENTIER 409.

*Prorocentrum veloi*, *P. robustum*, *P. mexicanum* spp. n. Marine, Mexico, OSORIO TAFALL 513.

*Pseudokephyron circumcisum*, *P. tintinnabulum* spp. n., freshwater, Belgium, CONRAD 169.

Sinodiniidae fam. n., Indo-China, NIE 505.

*Sinodinium* gen. n. *connectens* sp. n., Indo-China, NIE 505.

*Sinophysis* gen. n. *microcephalus* sp. n. Chinese waters, NIE & WANG 506.

## (d) Euglenoidida.

*Distigmopsis* gen. n., *grassei* sp. n. Horse dung, HOLLANDE 330.

*Entosiphon striatum* sp. n., freshwater, Fontainbleau, HOLLANDE 330.

*Euglena chamberlini* sp. n. Great Salt Lake, JONES 353

*Peranema macromastix* sp. n. freshwater, Belgium, CONRAD 167.

*Petalomonas splendens*, *P. acuminata*, *P. dilatata*, *P. minuta*, *P. arcuata*, *P. dubosqui*, *P. s-carinata* spp. n., freshwater, France, HOLLANDE 330.

*Phacus carinatus*, *P. sulcatus* spp. n., freshwater, Belgium, CONRAD 171.

*Chlamydomonas vorkiesi* sp. n. from Great Salt Lake, U.S.A., JONES 354.

*Volvox*: revision of genus with description of and key to spp., SMITH 651.

## (e) Phytomonadida.

## B. ZOOMASTIGINA.

## (f) Protomonadida.

Classification of human intestinal flagellates, SUAREZ PEREGRIN 674.

*Caduceia calotermidis* sp. n. from N. Zealand termite, *Calotermes brouni*, NURSE 509.

*Cercobodo heimi*, *C. granulifera* spp. n. manure, HOLLANDE 330.—*C. cometa* sp. n. Coprozoic, HOLLANDE 329.

*Cochlosoma* spp., comparative dimensions, CAMPBELL 121.

*Craigia*, revision and affinities, with synonyms: *Enteromonas*, *Tricercomonas*, etc. [type: *C. hominis* (Craig, 1906) Calkins, 1913], LOPEZ-NEYRA & MIRA 420.

*Leishmania chagasi*: discussion on its systematic position, affinities and bionomics, ADLER 29.

*Metadevescovina*: key to spp.; *M. extranea* sp. n., *M. modica* sp. n., *M. modesta* sp. n.; *M. stereociliata* comb. n. for *Devescovina stereociliata* Gr.; *M. mediocris* sp. n., *M. cuspidata* sp. n., *M. cristata* sp. n., *M. patula* sp. n., *M.*



*turbula* sp. n., *M. nudula* sp. n., *M. carina* sp. n., *M. fulleri* sp. n., *M. nitida* sp. n., *M. magna* sp. n., from termites, KIRBY 372.

*Oicomonas beauchampi* sp. n. from cultures of *Chlorella*, HOVASSE 335.

*Oxymonas* spp.: differential characters and host-list, MELLO & MELLO 472.—*O. diundulata* sp. n. from N. Zealand termite *Calotermes brouni*, NURSE 509.

*Pentatrachomonas alleni* sp. n. from intestine of Himalayan crow *Corvus leuallenti intermedius*, RAY & SAPRE 564.

*Pseudobodo* gen. n. *minima* sp. n. ectoparasitic on *Chilomonas paramaecium*, HOLLANDE 330.

*Tetramitus stromsteni* sp. from Great Salt Lake, U.S.A., JONES 354.

*Trichomonas*: list of spp. described with host-index, MORGAN 485.—*T. agilis* sp. n. from N. Zealand termite *Calotermes brouni*, NURSE 509.

*Trypanoplasma gande* sp. n. from fish *Labeo macrostoma*, Congo, RODHAIN 589.

*Trypanosoma phyllotis* sp. n. from S. American rodent *Phyllotis* sp., transmitted by sandfly, HERRER 324.—*T. grylli* sp. n., from N. American amphibian, *Acris gryllus*, NIGRELLI 507.—*T. malopteruri* sp. n., *T. grandei* sp. n. from fishes (*Malopterurus electricus* and *Labeo macrostoma* respectively), Congo, RODHAIN 589.—*T. saimiri* sp. n. from squirrel monkey *Chrysothrix sciureus*, RODHAIN 585.

#### (g) Hypermastigida.

*Cyclojoenia* gen. n. *australis* sp. n. from N. Zealand termite *Stolotermes ruficeps*, NURSE 509.

#### (h) Diplomonadida.

[Vacant.]

#### (i) Polymonadida.

*Proboscidiella hoffmanni* sp. n. from Indian *Cryptotermes*, MELLO & MELLO 472.

### FLAGELLATA INCERTAE SEDIS.

†*Palaeostomocystis pulchella* sp. n. Cretaceous, Belgium, CONRAD 162.

### 3. SPOROZOA.

#### A. COCCIDIOMORPHA.

##### (a) Gregarinida.

*Gregarina rhyparobiae* sp. n. from cockroach, *Rhyparobia maderae*, Uganda, WATSON 710.

*Pintospora* gen. n. *bigemina* sp. n. from S. American beetle *Astylus atromaculatus*, CARINI 126.

##### (b) Coccidiida.

*Eimeria*: host-parasite list of spp. described from Chelonia; *E. trionyxae* sp. n., *E. triangularis* sp. n. from Indian turtle, *Trionyx gangeticus*, CHAKRAVARTY & KAR 135.

*Haemogregarina epuluensis* sp. n. from *Rana oxyrhynchus*, Belgian Congo, BERGHE 67.

*Myriospora gopalai* sp. n. from Indian Polychaete, GANAPATI 272.

*Wenyonella gallinae* sp. n., from domestic fowl, India, RAY 561.

##### (c) Haemosporidia.

*Babesia metalnikovi* sp. n. from wild boar, Indochina, TOUMANOFF 690.

*Haemoproteus zosteropsi* sp. n., from Indian white-eye (*Zosterops palpebrosa*) CHAKRAVARTY & KAR 136.

*Nuttallia alberti* sp. n. from hyena *Crocuta crocuta*, Belgian Congo, BERGHE 67.

*Pattonella* gen. n. *gibsoni* (nom. n. for *Babesia gibsoni* Patton); Patonellidae fam. n. to include this gen., RAY & IDANI 563.

*Piroplasma* vide *Babesia*.

*Plasmodium*: Metchnikov's views regarding systematic position and affinities of malaria parasites MOSHKOVSKI 448.—*P. limnotragi* sp. n. from antelope *Limnotragus spekei*, Belgian Congo, BERGHE 67.—*P. plocei* sp. n. from weaver bird *Ploceus philippinus*;

*P. pericrocoti* sp. n. from small minivet *Pericrocotus cinnamomeus*, India, CHAKRAVARTY & KAR 136.—*P. hylobati* sp. n. (provisional) from gibbon *Hylobates lensiscus* RODHAIN 584.

## B. CNIDOSPORIDIA.

### (d) Myxosporidia.

*Chloromyxum rosenbuschi* sp. n. from S. American fish *Merluccius gayi*, GELORMINI 279.

*Henneguya* divided into 3 genera: *H.* (emend.), *Unicauda* gen. n., *Myxobilatus* gen. n., DAVIS 204.

*Myxobilatus* gen. n. (nom. n. for *Henneguya gasterostei*, etc.); *M. caudalis* sp. n., *M. asymmetricus* sp. n. from N. American fishes, DAVIS 204.

*Unicauda* gen. n. (nom. n. for *Henneguya brachyura*, etc.), DAVIS 204.

### (e) Microsporidia.

[Vacant.]

### (f) Actinomyxidia.

[Vacant.]

### (g) Sarcosporidia.

[Vacant.]

### (h) Haplosporidia.

[Vacant.]

## 4.—CILIOPHORA.

### A. OPALINATA.

[Vacant.]

### B. CILIATA.

### (a) Holotrichida.

*Cochliophilus* gen. n. *depressus* sp. n. (type-sp.), *C. minor* sp. n. from mantle cavity of snail *Phytia setifer*, California, KOZLOFF 382.

Cyathodiniidae: monograph of the family, which is transferred to suborder Astomata, CUNHA & FREITAS 190.

*Cyathodiniodes intermedius* sp. n., *C. parvus* sp. n. from wild guinea-pig, CUNHA & FREITAS 190.

*Cyathodinium* (C.) *scotti* sp. n.; *C. (C.) pentagonum* sp. n.; *C. (Paracyathodinium subgen. n.) breve* sp. n., from wild guinea-pigs, S. America, CUNHA & FREITAS 190.

*Heterocineta phoronopsidis* sp. n. ectoparasitic on *Phoronopsis viridis* California coast, KOZLOFF 383.

*Paracyathodinium* subgen. n. of *Cyathodinium* [type *Cyathodinium (Paracyathodinium) chagasi* Cunha & Freitas, 1935], CUNHA & FREITAS 190.

*Paradileptus ovalis* sp. n., Lake of Zürich, HUBER-PESTALOZZI 339.

### (b) Heterotrichida.

*Balantidium minutum* Schaudinn, an alleged human parasite, shown to be a coprozoic ciliate, identical with *Balantio-phorus minutus* (Holotrichida), WATSON 712, 713.

*Blepharisma bimicronucleata* sp. n. French waters, VILLENEUVE-BRACHON 705.

Chattonidiidae fam. n., VILLENEUVE-BRACHON 705.

*Condylostoma ancestralis*, *C. borax* spp. n. French waters, VILLENEUVE-BRACHON 705.

*Copemetopus* gen. n. *subsalsus* sp. n. Brackish water, France, VILLENEUVE-BRACHON 705.

*Licnophora biecheleri* sp. n. French waters, VILLENEUVE-BRACHON 705.

*Metropus vestitus*, *M. mathiasi* spp. n. French waters, VILLENEUVE-BRACHON 705.

*Nyctotherus gaudichaudi* sp. n. from S. American frog, *Crassodactylus gaudichaudi*, CARINI 147.

*Parablepharisma bacteriophora* sp. n. French waters, VILLENEUVE-BRACHON 705.

*Parafolliculina annulata* sp. n. from Oahu coast, Hawaii, ANDREWS 33a.

*Peritromus kahli* sp. n., French waters, VILLENEUVE-BRACHON 705.

*Protocrucia tuzeti* sp. n. French waters, VILLENEUVE-BRACHON 705.

*Stentor felici* sp. n. French waters, VILLENEUVE-BRACHON 705.

(c) **Oligotrichida.**

†Tintinnidae, newly recorded, Cretaceous, Spain, CALATAYUD 116.

*Epistylis aselli* sp. n. Lake Balaton, Hungary, STILLER 669.—*E. halophila*, *E. opercularia*, *E. salina* spp. n., freshwater, Hungary, STILLER 670.

(d) **Entodiniomorpha.**

*Entodinium insolitum* sp. n., from Indian rhinoceros (*R. unicornis*), WATSON 711.

*Opercularia sinuans*, *O. pseudoglomerata* spp. n., freshwater, Hungary, STILLER 670.

*Vorticella halophila* sp. n., freshwater, Hungary, STILLER 670.

(e) **Hypotrichida.**

[Vacant.]

*Zoothamnium plectostylum* sp. n. Lake Balaton, Hungary, STILLER 669.

(f) **Peritrichida.**

*Carchesium umbilicatum* sp. n., freshwater, Hungary, STILLER 670.

**C. SUCTORIA.**

[Vacant.]

# 3. PORIFERA

BY

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## I.—TITLES.

1.—**Opinion 7.** On the interpretation of the expression “n.g., n.sp.” under Article 30 (a) of the International Code, as respects generic names published on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* 1 16 1945 pp. 139–146.

2.—**Opinion 8.** On the retention of “i” or “i” in specific patronymic names, under Article 14, third paragraph, and Article 19 of the International Code. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 17 1945 pp. 147–158.

3.—**Opinion 9.** The use of the name of a composite genus for a component part requiring a name, where the name so used was published on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 18 1945 pp. 159–170.

4.—**Opinion 10.** The designation of genotypes for genera published with identical limits, on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 19 1945 pp. 171–178.

5.—**Opinion 138.** On the method by which the Amendment to Article 25 of the International Code adopted at the Budapest Meeting of the International Zoological Congress, relating to the Replacement of Invalid Names, should be interpreted. *Opinions rendered Internat. Comm. Zool. Nomencl.* 2 1942 pp. 29–34.

6.—**Opinion 141.** On the principles to be observed in interpreting Article 4 of the International Code relating to the meaning of families and subfamilies.

*Opinions rendered Internat. Comm. Zool. Nomencl.* 2 1943 pp. 55–66.

7.—**Opinion 148.** On the principles to be observed in interpreting Articles 25 and 34 of the International Code in relation to the availability of generic names proposed as emendations of, or as substitutes for, earlier generic names of the same origin and meaning. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* 2 1943 pp. 133–144.

8.—**Opinion 164.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the types of genera when two or more genera are united on taxonomic grounds. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 2 34 1945 pp. 347–358.

9.—**Opinion 168.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the names of genera based upon erroneously determined species (*Opinion* supplementary to *Opinion* 65). *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 2 38 1945 pp. 411–430.

10.—**Opinion 191.** On the question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to students or colleagues constitutes “publication” within the meaning of proviso (a) to Article 25 of the International Code. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 3 10 1945 pp. 129–136.

11.—**Opinion.** On the status of a generic name proposed as an emendation of a previously published generic name, where the earlier published of the two generic names is later found to be invalid by reason of being a homonym



or otherwise. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 2 30A 1945 pp. (11)–(13).

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ARRANGED BY

H. DIGHTON THOMAS, M.A., PH.D.

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†*Kirklandiidae* fam. n. p. 7, CASTER Palaeont. Amer. 3 18 1945.

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†*Stylodictyon columnare* p. 61 fig., SHIMER & SHROCK 129.

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†*Syringostroma niagarensis* p. 61 fig., *barretti* p. 61 fig., SHIMER & SHROCK 129.

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*Ptilograptus plumosus* p. 69 fig., SHIMER & SHROCK 129.

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†*Leptobrachiites trigonobrachiatus* not a synonym of *Rhizostomites admirandus* p. 38, CASTER 25.

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*Anthothela macrocalyx* p. 170 fig., VERSEVELDT 172.

†*Bacillastraea* possibly synonymous with *Polytremacis* p. 93, ALLOITEAU 16.

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†*Helioalcyon* gen. n. p. 70, genotype (by authors' designation) *segaudi* sp. n. p. 70 fig. Viséan Morocco, TERMIER & TERMIER C.R. Séances Soc. géol. Fr. 1945 5-6.

†*Heliopora fijiensis* sp. n. p. 310 fig. Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

*Lobularia echinata* sp. n. p. 575 fig. Perim, TIXIER-DURIVAUT (2) 13 6 1941.—*L. papillosa* sp. n. p. 80 fig. Gambier Is. and Tuamotu Is., TIXIER-DURIVAUT Bull. Mus. nat. Hist. nat. Paris (2) 14 1 1942.—*L. kükenthali* sp. n. p. 138 fig. Red Sea, TIXIER-DURIVAUT Bull. Mus. nat. Hist. nat. Paris (2) 14 2 1942.—*L. germaini* sp. n. p. 123 fig. Red Sea, TIXIER-DURIVAUT Bull. Mus. nat. Hist. nat. Paris (2) 15 3 1943.—*L. bottai* sp. n. 1943 p. 439 Western Australia and Red Sea, *brachyclados* 1943 p. 439, *ceylonica* 1943 p. 440, *conifera* sp. n. 1943 p. 441 Indo-China, *crassa* sp. n. 1943 p. 441 Red Sea, *digitulata* 1943 p. 441, *dolifusi* sp. n. 1943 p. 442 Western Australia and Red Sea, *echinata* 1943 p. 443, *elegantissima* 1944 p. 183, *elongata* sp. n. 1944 p. 183 Red Sea, *exigua* sp. n. 1944 p. 184 Red Sea, *foliacea* sp. n. 1944 p. 184 Indo-China, *germaini* 1944 p. 184, *globulifera* 1944 p. 185, *gracilis* sp. n. 1944 p. 185 Red Sea, *hicksoni* sp. n. 1944 p. 186 Red Sea, *irregularis* sp. n. 1944 p. 186, *klunzingeri* 1944, p. 187, *kremppfi* 1944 p. 187, *kükenthali* 1944 p. 188, *laciniosa* sp. n. 1944 p. 188 Red Sea, *latissima* sp. n. 1944 p. 189 Indo-China, *letourneuxi* sp. n. 1944 p. 189 Suez, *lineata* sp. n. 1944 p. 189 Red Sea, *madagascarensis* sp. n. 1944 p. 190 Madagascar, *melchiani* sp. n. 1944 p. 339 Red Sea, *minuta* sp. n. 1944 p. 339 [no locality given], *pacyclados* 1944 p. 340, *papillosa* 1944 p. 341, *prattae* sp. n. 1944 p. 341 Red Sea, *pulchra* sp. n. 1944 p. 342 Gambier Is. and Tuamotu Is., *similis* sp. n. 1944 p. 342 Seychelles, *sphaerophora* p. 343, *studerii* sp. n. 1944 p. 344 Red Sea, *suezensis* sp. n. 1944 p. 344 Suez, *tenuis* sp. n. 1944 p. 345 Red

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†? Pennatulid from the Devonian of Canada, TREMBLAY 163.

†*Plumalina gracilis* p. 58 fig., WILLIAMS 181.

†*Polytremacis* possibly synonymous with *Bacillastraea* p. 93, *blainvilleana* p. 40 fig., *complanata* p. 41 fig., ALLOITEAU 16.

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*Suberia macrocalyx* p. 170 fig. a sp. of *Anthothela*, VERSEVELDT 172.

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†*Syringocalcyon* gen. n. p. 70, genotype (by authors' designation) *maroccana* sp. n. p. 70 fig. Viséan Morocco, TERMIER & TERMIER C.R. Séances Soc. géol. Fr. 1945 5-6.

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*Palaeacis* p. 195, *testata* p. 195 fig., *walcootti* p. 197 fig., spp. n. Lower Pennsylvanian Texas, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

*Paleoalveolites paquettensis* p. 105 fig., SHIMER & SHROCK 129.

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†*Acanthophyllum* discussed p. 10, *heterophyllum* pp. 10, 91 fig., SMITH 134.

†*Acerularia* discussed p. 10, *ananas* var. *truncata* p. 10 fig., but *dauidsoni* partim is a *Prismatophyllum* p. 51 fig., SMITH 134.

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*Actinia equina* in radioactive water p. 9 fig., LUNA 88.

†*Agathelia ransoni* sp. n. p. 20 fig., Cenomanian France, ALLOTEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Alveopora explanata* sp. n. p. 310 fig. Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†*Amplexi-Zaphrentis* genoelectotype discussed p. 197, vari nt convergent on *Zaphrentis* aff. *enniskilleni* is *Caninia lanceolata* p. 198, HUDSON 71.—*A.* genoelectotype discussed p. 205, THOMAS 151.

†*Amplexocarinia* discussed p. 140, *corrugata* p. 142 fig., MOORE & JEFFORDS 94.—*A.* pp. 92 246, *muralis* pp. 93, 246 fig., var. *minuta* pp. 94, 247 fig., var. *yakovlevi* pp. 95, 247 fig., *heimoi* pp. 97, 247 fig., *irginiae* pp. 98, 247 fig., *ruzhentzevi* pp. 100, 248 fig., *abichi* pp. 102, 248 fig., *socialis* sp. n. pp. 103, 248 fig. Lower Permian North Urals, but *muralis* var. *biseptata* a sp. of *Paraleynia* pp. 109, 249 fig., SOSHKINA Paleont. U.S.S.R. 5 3 1 1941.

†*Amplexocariniinae* subfam. n. (of *Polycoccolidae*) pp. 92, 246, SOSHKINA Paleont. U.S.S.R. 5 3 1 1941.

†*Amplexus adnatus* p. 627 fig. Illinois, *dilatatus* p. 628 fig. Illinois, *expansus* p. 629 fig. Oklahoma, *spp. n.* Lower Carboniferous, *geniculatus* p. 630 fig., EASTON J. Paleont. Menasha Wis. 19 6 1945.—*A. yandelli* p. 93 fig., *hamiltoniae* p. 93 fig., *nevadensis* p. 93 fig., *corrugatus* p. 93 fig., *A. ? shumardi* p. 93 fig., SHIMER & SHROCK 129.—*A. abichi* a sp. of *Amplexocarinia* pp. 102, 248 fig., SOSHKINA 138.

†*Amygdalophyllioides ivanovi* pp. 69, 70 fig., DOBROLYUBOVA 47.

†*Amygdalophyllum* discussed p. 50, *ivanovi* p. 51 fig., DOBROLYUBOVA 46.

*Anemonia sulcata* in radioactive water p. 9 fig., LUNA 88.

†*Antiquastraea* as *Antiquastrea* [sic] *cellulosa* p. 119 fig., SHIMER & SHROCK 129.

†*Aplocyathus*—see *Trochocyathus*.

†*Arachnophyllum pentagonum* p. 101 fig., *striatum* p. 101 fig., *mamillare* p. 101 fig., SHIMER & SHROCK 129.

†*Archohelia barbadiana* *sp. n.* p. 9 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Arcophyllum* pp. 43, 53, *typus* p. 43 fig., SOSHKINA 137.

†*Astraea* as *Astrea* [sic] *formosissima* Michelin non Sowerby is *Isastraea guettardana* p. 33 fig., ALLOITEAU 16.

†*Astraeopora* as *Astreopora* [sic] *tuvuthaensis* p. 309 fig., *ndukeluensis* p. 309 fig., *spp. n.* Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.—*A. antiquensis* p. 115 fig., SHIMER & SHROCK 129.

†*Astraræa* [sic] *corbarica* p. 19 fig., *senessei* p. 20 fig., *spp. n.* Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Astrhelia palmata* p. 119 fig., SHIMER & SHROCK 129.

†*Astrocoenia maloniana* p. 115 fig., *whitneyi* p. 115 fig., *guadalupae* p. 115, *decatuensis* p. 115 fig., SHIMER & SHROCK 129.—*A. trechmanni* p. 3 fig., *jukesbrownei* p. 3 fig., *spp. n.* Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.—*A. as Astrocaenia* [sic] *minima* p. 34 fig., ALLOITEAU 16.

†*Astrophyllum gerolsteinense* pp. 6, 23 fig., PRANTL 110.—*A. p. 27, gerolsteinense* p. 27 fig., SOSHKINA 137.

†*Atelophyllum* pp. 43, 53, SOSHKINA 137.

†*Aulacophyllum looghiense* p. 190 fig., COTTREAU 32.—*A. sulcatum* p. 101 fig., *bilaterale* p. 101 fig., SHIMER & SHROCK 129.

†*Azophyllum cavum* pp. 69, 71 fig., DOBROLYUBOVA 47.—*A. rude* p. 89 fig., SHIMER & SHROCK 129.

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†*Balanophyllia desmophyllum* p. 122 fig., *irrorata* p. 122 fig., *elaborata* p. 122 fig., *variabilis* p. 122 fig., SHIMER & SHROCK 129.—*B. subconica* *sp. n.* p. 201 fig. Oligocene Italy, VENZO Studi Trentini Trento 22 3 1941.—*B. sp. cf. irrorata* p. 16 fig., *sp. p. 16 fig.*, WELLS 179.

†*Barbadiastrea* *gen. n.* (fam. Faviidae) p. 8, genotype (by original designation) *favioides* *sp. n.* p. 8 fig., WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Baryphyllum verneuianum* p. 85 fig., SHIMER & SHROCK 129.

†*Barytichisma* *gen. n.* (fam. Hap-siphyllidae) p. 131, genotype (by original designation) *crassum* p. 131 fig. Texas, *repletum* p. 133 fig. Texas, *callosum* p. 134 fig. Texas and Arkansas, *spp. n.* Lower Pennsylvanian, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Billingsastraea verneuili* p. 97 fig., *billingsi* var. *nevadensis* p. 97 fig., SHIMER & SHROCK 129.

†*Blothrocyathus harrisi* p. 117 fig., SHIMER & SHROCK 129.

†*Blothrophyllum decorticatum* p. 97 fig., SHIMER & SHROCK 129.

†*Bothrophyllum* discussed p. 24, *conicum* p. 27 fig., var. 1 p. 29 fig., var. *robusta* var. *n.* pp. 30, 69 fig., *pseudoconicum* p. 32 fig., *rareseptatum* *sp. n.* pp. 33, 70 fig., *sp. 1* p. 34 fig., *sp. 2* p. 35 fig., Upper Carboniferous Moscow Basin, DOBROLYUBOVA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 9 3 1940.—*B. conicum* pp. 69, 70 fig., *pseudoconicum* p. 69 fig., var. *conica* p. 70 fig., DOBROLYUBOVA 47.

†*Calamophyllia* see *Thecosmilia*.

†*Calceola sandalina* p. 194, COTTREAU 32.—*C. (Rhizophyllum) tennesseensis* p. 99 fig., SHIMER & SHROCK 129.—*C. pp. 36, 52, sandalina* p. 36 fig., SOSHKINA 137.



†*Calostylis* p. 17, *denticulata* p. 17 fig., SMITH 134.

†Campophyllidae discussed pp. 37, 52, SOSHKINA 137.

†*Campophyllum* sp. aff. *parvulum* p. 37 fig., DOBROLYUBOVA 46.—*C.* pp. 129, 252, *hoeli* pp. 130, 253 fig., DOBROLYUBOVA 48.—*C. asiaticum* pp. 402, 405 fig., ÜNSALANER 168.

†*Caninia* sp. p. 64 fig., CHALLINOR 27.—*C. cornucopiae* plexus p. 193, variation p. 195, *lanceolata* sp. n. p. 197 fig. Lower Carboniferous Yorkshire, variation p. 200, cf. *lanceolata* pp. 204, 205 fig., HUDSON Quart. J. Geol. Soc. London 100 3-4 1944 (1945).—*C. juddi* var. *dawsoni* p. 91 fig., *torquia* p. 91 fig., SHIMER & SHROCK 129.

†*Caninophyllum* pp. 122, 251, *ruprechtii* pp. 124, 252 fig., *kokscharowi* pp. 126, 252 fig., DOBROLYUBOVA 48.

†*Caninostroton variabilis* p. 387 fig., EASTON 52.

†*Carruthersella compacta* p. 101 fig., DELÉPINE 43.

†*Caryophyllia crassicosta* p. 12 fig., *granulata* p. 13 fig., ALBRECHT & VALK 13.—*C. jouanensis* sp. n. p. 6 fig. Upper Cretaceous France, sp. p. 3 fig., ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.—*C. colei* sp. n. p. 10 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Centrastraea micraxona* p. 36 fig., *cistela* p. 37 fig., ALLOITEAU 16.

†*Ceratinella* gen. n. (pro *Schlüteria* Wedekind non Fritsch) p. 36, *soentenicum* p. 36 fig. Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Ceratotrochus duodecimcostatus* p. 477, ROGER 115.—*C. putillus* sp. n. p. 12 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

*Cerianthus lloydi* larva is *Synarachnaectis bournei* p. 100 fig., NYHOLM 99.

†*Charactophyllum* discussed p. 17, *narum* p. 17 fig., sp. p. 18 fig., SMITH 134.

†*Chonophyllum magnificum* p. 101 fig., SHIMER & SHROCK 129.—*C.* discussed p. 19, *perfoliatum* p. 19 fig., SMITH 134.

†*Cladophyllia furcifera* p. 119 fig., SHIMER & SHROCK 129.

†*Clisiophyllum* sp. n. [sic] p. 103 fig. Visean Algero-Morocco, sp. p. p. 103 fig., DELÉPINE Bull. Soc. géol. Fr. (5) 9 1939.—*C. leptoconicum* a *Pterophyllum* pp. 78, 243, SOSHKINA 138.

†*Coeloseris mayeri* p. 306, *stockwellensis* sp. n. p. 306 fig. Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†*Columnaria* pp. 30, 52, *vulgaris* p. 30 fig., SOSHKINA 137.

†*Columnariacea subord. n.* pp. 30, 52, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

*Columnaridae* discussed pp. 30, 52, SOSHKINA 137.

†*Combophyllum obtusum* sp. n. p. 101 fig. Lower Devonian Germany, SANDBERGER Jahrb. Nassau. Ver. Naturk. 42 1889.

†*Confusastraea* as *Confusastrea* [sic] *covichanensis* p. 119 fig., SHIMER & SHROCK 129.

†*Corwenia densicolumella* pp. 173, 261 fig., DOBROLYUBOVA 48.

†*Cosmophyllum* pp. 43, 53, SOSHKINA 137.

†*Crassiphyllum* a synonym of *Permia* p. 289, HUDSON 72.

†*Cumminsia* gen. n. (fam. Porpitidae) p. 164, genotype (by original designation p. 165) *Hadrophyllum apatum* p. 166 fig. Lower Pennsylvanian Texas, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Cyathaxonia cornu* var. *orientalis* var. n. pp. 10, 59 fig. Upper Carboniferous Moscow Basin, DOBROLYUBOVA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 9 3 1940.—*C.* transferred to *Syringaxonidae* p. 289, HUDSON 72.—*C. cornu* var. *orientalis* pp. 41, 235 fig., SOSHKINA 138.

†*Cyathina crassicosta* a *Caryophyllia* q.v.

†*Cyathocarinia rushiana* var. *multituberculata* pp. 43, 236 fig., SOSHKINA 138.

†*Cyathoclisia tabernaculum* p. 102 fig., DELÉPINE 43.

†*Cyathophyllum ceratites*, var. *marginatum*, *caespitosum* var. *breviseptatum*, *cylindricum* p. 191, COTTREAU 32.—*C. prosperum* pp. 8, 11, *minusculum* p. 8,

*confusum* p. 16 all are *Xylodes* q.v., PRANTL 107.—*C. robustum* p. 95 fig., SHIMER & SHROCK 129.—*C. quadrigeminum* p. 46 fig. and *arcticum* p. 47 fig. are *Prismatophyllum*, SMITH 134.—*C. quadrigeminum* p. 600 fig., sp. p. 602 fig., ÜNSALANER 167.—*C. caespitosum* pp. 401, 404 fig., *ceratites* pp. 401, 404 fig., ÜNSALANER 168.

†*Cyclolites trochoides* a *Serpula* p. 14 fig., ALBRECHT & VALK 13.—*C. senessei* p. 11 fig., *enigma* p. 12 fig., spp. n. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.—*C. numismalis* p. 35 fig., *rugosa* p. 68 fig., *corbieriaca* p. 69 fig., *haueriana* p. 70 fig., *reussi* p. 71 fig., ALLOITEAU 16.—*C. heberti* p. 12 fig., *paterna* p. 13 fig., LOSS 87.

†*Cycloseris heberti* p. 417 fig., *andianensis* p. 417 fig., *garnieri* p. 417 fig., GAONO 63.

†*Cylindrophyllum elongatum* p. 95 fig., *panicum* p. 95 fig., *hindshawii* p. 95 fig., SHIMER & SHROCK 129.

†*Cystiphyllidae* discussed pp. 41, 53, SOSHKINA 137.

†*Cystiphyllum vesiculosum, lamellosum* p. 193, COTTREAU 32.—*C.* discussed p. 1, *siluriense bohemicum* p. 3 fig., *siluriense regulare* sp. n. [sic] p. 6 fig. Silurian Bohemia, *gracile gracile* a *Hedströmophyllum* p. 9 fig., *gracile curtum* a *Hedströmophyllum* p. 11 fig., *placidum placidum* a *Hedströmophyllum* p. 12 fig., *placidum minuens* a *Hedströmophyllum* p. 13 fig., PRANTL Mitt. Tschech. Akad. Wiss. Prague 1941.—*C. niagarensis* p. 99 fig., *C. ? sulcatum* p. 99 fig., "*C.*" *americanum* p. 99 fig., *C. conifolius* p. 101 fig., *aggregatum* p. 101 fig., SHIMER & SHROCK 129.—*C.* discussed p. 20, *cylindricum* p. 20 fig., SMITH 134.—*C. concentricum* sp. n. p. 31 fig. Silurian Yunnan, WANG Bull. geol. Soc. China 24 1944.

†*Cystophora* pp. 158, 259, *biseptata* pp. 160, 259 fig., *monoseptata* pp. 162, 259 fig., var. *columellaris* var. n. pp. 163, 260 fig. Artinskian (?) South Urals, *longiseptata* pp. 165, 260 fig., *wischeriana* pp. 169, 261 fig., DOBROLYUBOVA Paleont. U.S.S.R. 5 3 1 1941.—*C. pseudowischeriana* pp. 166, 260 fig., *pennata* pp. 167, 260 fig., spp. n. Lower Permian European Russia, PORFIRIEV Paleont. U.S.S.R. 5 3 1 1941.

†*Dendrogyra pyrenaica* p. 66 fig., ALLOITEAU 16.—*D. senessei* sp. n. p. 17 fig. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Dialtyophyllum* pp. 43, 53, *complicatum* p. 43 fig., SOSHKINA 137.

†*Dibunophyllum valeriae* p. 89 fig., SHIMER & SHROCK 129.—*D. (?) inauditum* sp. n. p. 157 fig. Lower Pennsylvanian Oklahoma, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Digonophyllidae* discussed pp. 28, 52, SOSHKINA 137.

†*Digonophyllum* pp. 30, 52, SOSHKINA 137.

†*Dimorphastraea tenuissima* p. 18 fig., sp. p. 38 fig., *firmsiana* p. 72 fig., ALLOITEAU 16.

†*Diphyphyllum arundinaceum* is *Spongophyllum pax* p. 56 fig., SMITH 134.

†*Diphystroton* pp. 132, 253, *noinskyi* sp. n. pp. 134, 253 fig., var. *vesiculosa* var. n. pp. 135, 254 fig., *hyporiphaeum* sp. n. pp. 136, 254 fig., *mirabile* sp. n. pp. 137, 254 fig., *regulare* sp. n. pp. 139, 255 fig., Lower Permian European U.S.S.R., PORFIRIEV Paleont. U.S.S.R. 5 3 1 1941.

†*Diploastraea* as *Diploastrea* [sic] *harrisi* p. 117 fig., *crassolamellata* p. 117 fig., SHIMER & SHROCK 129.—*D.* [sic] *polygonalis* p. 307 fig., var. *lauensis* var. n. p. 308 fig. Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†*Diploctenium* synonymous with *Phyllostomilia* p. 50, *lunatum* p. 51 fig., *matheroni* p. 52 fig., ALLOITEAU 16.

†*Diplophyllum caespitosum* p. 99 fig., SHIMER & SHROCK 129.

†*Dipterophyllum glans* p. 85 fig., SHIMER & SHROCK 129.

†*Discotrochus orbignianus* p. 117 fig., *californicus* p. 117 fig., SHIMER & SHROCK 129.—*D. vaughanianus* sp. n. p. 8 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Disphyllum occidens* p. 95 fig., SHIMER & SHROCK 129.—*D.* discussed p. 20, *goldfussi* p. 21 fig., *catenatum* sp. n. p. 21 fig., *elongatum* p. 96 fig., *D.* [*Synaptophyllum*] cf. *arundinaceum* p. 22 fig., *D.* [*S.*] *densum* sp. n. p. 22 fig., *D.* [*S.*] *camselli* sp. n. p. 23 fig., *D.* [*S.*] *stramineum* p. 23 fig., forma *simcoense*

p. 24 fig., Upper Devonian N.W. Canada, SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Diversophyllum traversense* p. 93 fig., SHIMER & SHROCK 129.

†*Dohmophyllum* pp. 28, 52, *goldfussi* p. 28 fig., SOSHKINA 137.

†*Dokophyllum* see *Ketophyllum*.

†*Dominicotrochus dominicensis* p. 17 fig., WELLS 179.

†*Duncanella borealis* p. 83 fig., SHIMER & SHROCK 129.

†*Dungulia texana* p. 22 fig., SHIMER & SHROCK 129.

†*Duplophyllum septarugosum* p. 87 fig., SHIMER & SHROCK 129.

†*Elasmocaenia* [sic] *explanata* p. 15 fig., *melchioni* p. 15 fig., ALLOITEAU 16.

†*Elysastraea vancouverensis* p. 119 fig., SHIMER & SHROCK 129.

†*Empodesma* gen. n. (fam. Streptelasmidae) p. 89, genotype (by original designation) *imulium* sp. n. p. 90 fig. Lower Pennsylvanian Texas, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Endopachys maclurii* p. 122 fig., SHIMER & SHROCK 129.—*E. maclurii* p. 16 fig., WELLS 179.

†*Endophyllum* discussed p. 24, *abditum* p. 24 fig., SMITH 134.

†*Entelophyllum rugosum* p. 99 fig., SHIMER & SHROCK 129.

†*Enterolasma caliculum* p. 85 fig., *strictum* p. 85 fig., SHIMER & SHROCK 129.

†*Epismilia globosa* p. 27 fig., ALLOITEAU 16.

†*Eridophyllum seriale* p. 89 fig., *colligatum* p. 91 fig., *archiaci* p. 91 fig., SHIMER & SHROCK 129.

†*Eusthenotrochus* see *Sphenotrochus*.

†*Fasciophyllum* pp. 32, 52, *schluteri* p. 33 fig., *byense* sp. n. p. 34 fig., *halliforme* sp. n. p. 33 fig., var. *orientalis* var. n. p. 33 fig., Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Favia ambigua* p. 14 fig., ALLOITEAU 16.

†*Favistella* sp. p. 69 fig., ROY 121.—*F. stellata* p. 99 fig., *halli* p. 99 fig., *alveolata* p. 99 fig., SHIMER & SHROCK 129.

†*Flabellum* sp. cf. *cristatum* p. 13 fig., ALBRECHT & VALK 13.—*F. avicula* p. 478, ROGER 115.—*F. avicula* p. 245 fig., *extensum* p. 251 fig., *manzoni* p. 251 fig., *circulare* p. 251 fig., *vaticani* p. 253 fig., ROGER 116.—*F. cuneiforme* p. 122 fig., var. *lerchi* p. 122 fig., var. *pachyphyllum* p. 122 fig., *redmondianum* p. 122 fig., SHIMER & SHROCK 129.—*F.* sp. p. 15 fig., *antillarum* sp. n. p. 15 fig. Eocene Barbados, sp. p. 16, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Fungiacyathus* sp. p. 7 fig., WELLS 179.

†*Galaxea lauensis* sp. n. p. 304 fig. Miocene or Pliocene Lau Fiji, sp. cf. *explanata* p. 305, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†Gen. et sp. ind. Netchaev a new sp. of *Pterophyllum* pp. 83, 244 fig., SOSHKINA 138.

†*Glossophyllum* pp. 36, 52, *dohmi* p. 35 fig., *discoideum* p. 36 fig., SOSHKINA 137.

†*Goniastrea* [sic] *retiformis* p. 305, HOFFMEISTER 69.

†*Goniopora reussiana* p. 117 fig., SHIMER & SHROCK 129.—*G. hedbergi* sp. n. p. 7 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Grypophyllum* pp. 24, 51, *gracile* p. 24 fig., *carinatum* p. 24 fig., SOSHKINA 137.

†*Gshelia* discussed pp. 38, 71, *rouillieri* pp. 41, 73 fig., DOBROLYUBOVA 46.—*G. rouillieri* pp. 69, 70 fig., var. *breviseptata* p. 70 fig., DOBROLYUBOVA 47.

†*Gymnophyllum* gen. n. p. 1, genotype (by original designation) *wardi* p. 2 fig. Upper Carboniferous Oklahoma, HOWELL Bull. Wagner Free Inst. Philad. 20 1 1945.

†*Hadrophyllum orbignyi* p. 190 fig., COTTREAU 32.—*H. aplatum* the genotype of *Cumminsia* p. 165, MOORE & JEFFORDS 94.—*H. orbignyi* p. 85 fig., *ovale* p. 85 fig., *aplanatum* p. 85 fig., SHIMER & SHROCK 129.

†*Haimesiastraea conferta* p. 122 fig., SHIMER & SHROCK 129.

†*Hallia vesiculata* p. 93 fig., SHIMER & SHROCK 129.

†*Hapsiphyllum* p. 123, *tumidum* p. 125 fig. Texas, *retusum* p. 126 fig. Texas, *crassiseptatum* p. 128 fig. Oklahoma, spp. n. Lower Pennsylvanian, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945. —*H. calcariforme* p. 87 fig., SHIMER & SHROCK 129.

†*Hedströmyphyllum* discussed p. 7, *gracile gracile* p. 9 fig., *gracile curtum* p. 11 fig., *placidum placidum* p. 12 fig., *placidum minuens* p. 13 fig., PRANTL 108. —*H.* discussed p. 28, genotype erroneously chosen *weissermeli* p. 28, *conicum* sp. n. p. 28 fig., *gyalophylloides* sp. n. p. 29 fig., *stolleyi* var. *sinense* var. n. p. 30 fig., Silurian Yunnan, WANG Bull. geol. Soc. China 24 1944.

†*Heliastrea putealis* p. 30, *cribraria* pp. 30, 56 fig., *sculpta* p. 57 fig., ALLOITEAU 16.

†*Heliophyllum halli* p. 192 fig., COTTREAU 32. —*H. halli* p. 97 fig., *tenuiseptatum* p. 97, SHIMER & SHROCK 129. —*H.* discussed p. 25, *halli* p. 26 fig., *parvulum* p. 26 fig., SMITH 134. —*H.* pp. 37, 52, *ayense* sp. n. p. 37 fig. Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Heritschia girtyi* p. 87 fig., *columbica* p. 87 fig., SHIMER & SHROCK 129.

†*Heterocœnia* [sic] *crassalamella* p. 38 fig., *provincialis* p. 39 fig., *exigua* p. 75 fig., *conferta* p. 76 fig., ALLOITEAU 16.

†*Heterophrentis prolifica* p. 91 fig., *simplex* p. 91 fig., *nevadensis* p. 91 fig., SHIMER & SHROCK 129.

†*Hexagonaria prisma* p. 95 fig., *anna* p. 95 fig., *percarinata* p. 95 fig., *parvula* p. 95 fig., SHIMER & SHROCK 129.

†*Hexalasma primitivum* transferred to *Tachylasma* pp. 51, 237, SOSHKINA 138.

†*Homalophyllum ungula* p. 91 fig., *calceolum* p. 93 fig., SHIMER & SHROCK 129.

†*Hydnophorella jacobi* sp. n. p. 10 fig. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Isastrea guettardana* p. 33 fig., ALLOITEAU 16.

†*Keriophyllum* pp. 28, 52, *astreiforme* pp. 28 fig., SOSHKINA 137.

†*Ketophyllum* discussed p. 26, *turbinatum* p. 27 fig., SMITH 134. —*K.* discussed p. 26, *equitabulatum* sp. n.

p. 27 fig. Silurian Yunnan, sp. cf. *crassoseptatum* p. 27, K. (*Dokophyllum*) cf. *lindstroemi* p. 28, WANG Bull. geol. Soc. China 24 1944.

†*Kinkaidia* gen. n. p. 384, genotype (by original designation) *trigonalis* sp. n. p. 385 fig. Lower Carboniferous Illinois, EASTON J. Paleont. Menasha Wis. 19 4 1945.

†*Kodonophyllidæ* discussed pp. 34, 52, SOSHKINA 137.

†*Kodonophyllum truncatum* pp. 9, 115 fig., SMITH 134.

†*Koninckocarinia flexuosa* pp. 69, 71 fig., DOBROLYUBOVA 47.

†*Kyphophyllum primaevum* sp. n. p. 26 fig. Silurian Yunnan, WANG Bull. geol. Soc. China 24 1944.

†*Laccophyllum acuminatum* a *Syringaxon* p. 58 fig., SMITH 134.

†*Lambeophyllum profundum* p. 93 fig., SHIMER & SHROCK 129.

†*Lasmogyra martiniana* p. 64 fig., *occitanica* p. 65 fig., *germaini* sp. n. p. 82 fig. Senonian France, *marticensis* sp. n. p. 84 fig. Senonian France, ALLOITEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Latiphyllia requienii* p. 28 fig., ALLOITEAU 16.

†*Latomæandra michelini* sp. n. p. 80 fig. Senonian France, ALLOITEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Leonardophyllum distinctum* p. 89 fig., *acus* p. 89 fig., SHIMER & SHROCK 129.

†*Leptophyllia ramosæcostata* sp. n. p. 13 fig. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939. —*L. patellata* p. 19 fig., *cernua* p. 71 fig., ALLOITEAU 16. —*L. cormonsensis* p. 13, LOSS 87.

†*Leptoria senesseei* sp. n. p. 8 fig. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939. —*L. radiata* p. 59 fig., ALLOITEAU 16.

†*Lithostrotion irregulare* p. 64 fig., CHALLINOR 27. —“*L.*” *proliferum* p. 89 fig., *whitneyi* p. 89 fig., SHIMER & SHROCK 129.

†*Lithostrotionella castelnavi* p. 89 fig., *hemisphaerica* p. 89 fig., *americana* p. 89 fig., SHIMER & SHROCK 129.



†*Loipophyllum* p. 24, *sociale* p. 24 fig., SOSHKINA 137.

†*Lonsdaleiastraea* pp. 204, 266, *gerthi* pp. 205, 266 fig., var. *juresanensis* var. n. pp. 208, 266 Lower Permian European Russia, *complexa* pp. 209, 267 fig., *cargalensis* pp. 211, 267 fig., *densireticulata* pp. 213, 267 fig., *delicata* pp. 215, 268 fig., DOBROLYUBOVA 48.

†*Lophamplexus* p. 120, *captiosus* sp. n. p. 120 fig. Lower Pennsylvanian Oklahoma, sp. A p. 122 fig., sp. Bp. 122 fig., MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.—*L. eliasi* p. 87 fig., SHIMER & SHROCK 129.

†*Lopholasma gracile* pp. 90, 246 fig., *ilitschense* pp. 91, 246 fig., SOSHKINA 138.

†*Lophophyllidiidae* fam. n. p. 92, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Lophophyllidium* pp. 84, 245, *yakovlevi* sp. n. pp. 87, 245 fig., forma *minuta* form. n. pp. 89, 245 fig., Lower Permian Donetz Basin, FOMITSHEV in Paleont. U.S.S.R. 5 3 1 1941.—*L.* p. 93, *extumidum* p. 93 fig. Texas, *conoideum* p. 95 fig. Texas and Arkansas, *idonium* p. 96 fig. Oklahoma and Texas, *adaperium* p. 99 fig. Texas, *blandum* p. 101 fig. Oklahoma, *angustifolium* p. 103 fig. Arkansas and Oklahoma, *metum* p. 104 fig. Arkansas and Oklahoma, *exile* p. 104 fig. Oklahoma, *coaptum* p. 106 fig. Arkansas, *ignotum* p. 108 fig. Oklahoma, *eastoni* p. 108 fig. Arkansas, spp. n. Lower Pennsylvanian, *minutum* p. 107 fig., sp. A p. 110 fig., MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.—*L. proliferum* p. 87 fig., *dunbari* p. 87 fig., SHIMER & SHROCK 129.

†*Lophophyllum proliferum* Yakovlev non McChesney is *Lophophyllidium yakovlevi* q.v., FOMITSHEV 56.—*L. acostatum* a *Sinophyllum* pp. 65, 240 fig., SOSHKINA 138.

†*Lophosmilia corbarica* sp. n. p. 7 fig. Upper Cretaceous France, ALLOTEAU Bull. Soc. géol. Fr. (5) 9 1939.—*L. cenomana* p. 9 fig., ALLOTEAU 16.—*L. texana* p. 121 fig., SHIMER & SHROCK 129.

†*Lophotichium* gen. n. (fam. Lophophyllidiidae) p. 111, genotype (by original designation) *vescum* p. 112 fig. Arkansas and Oklahoma, *improcerum* p. 116 fig. Oklahoma, *densum* p. 117 fig. Oklahoma, *amoenum* p. 118 fig. Oklahoma,

spp. n. Lower Pennsylvanian, sp. A p. 118 fig., MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Lyttophyllum* pp. 43, 53, *platicalyx* sp. n. pp. 43, 45 fig. Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Lytvolasma asymetricum* pp. 105, 249 fig., SOSHKINA 138.

†*Lytvophyllum* gen. n. (fam. Lithostrotiontidae) pp. 146, 256, genotype (by original designation) *Thysanophyllum tschernowi* pp. 147, 256 fig. Lower Permian Middle Urals, DOBROLYUBOVA Paleont. U.S.S.R. 5 3 1 1941.

†*Macgea* discussed p. 27, *solitaria* p. 27 fig., *proteus* sp. n. p. 27 fig. Upper Devonian N.W. Canada, SMITH Spec. Pap. Geol. Soc. Amer. 59 1925.

†*Madracis duncani* sp. n. p. 5 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Madrepora* sp. p. 10 fig., WELLS 179.

†*Maecandraraea arausiaca* p. 37 fig., *ataciana* p. 73 fig., *circularis* p. 74 fig., ALLOTEAU 16.

†*Maecandrastraea pseudomaecandrina* p. 29 fig., *macrorreina* p. 55 fig., ALLOTEAU 16.

†*Malonophyllum kansasense* p. 87 fig., *texanum* p. 87, SHIMER & SHROCK 129.

†*Meniscophyllum* sp. aff. *kansuense* pp. 69, 70 fig., DOBROLYUBOVA 47.

†*Mesophyllum vesiculosum* p. 101 fig., *lonense* p. 101 fig., SHIMER & SHROCK 129.

†*Metriophyllacea superfam. n.* p. 287, HUDSON Proc. Leeds Phil. Lit. Soc. (Sci. Sect.) 4 4 1945.

†*Metriophyllum bouchardi* p. 192, COTTREAU 32.—*M.* discussed, *rectum* p. 28 fig., *bouchardi* p. 29 fig., sp. A p. 29 fig., SMITH 134.

†*Micrabacia cribraria* p. 117 fig., *rotatilis* p. 117 fig., *hilgardi* p. 117 fig., *americana* p. 117 fig., SHIMER & SHROCK 129.

†*Microcyclus simplex* sp. n. p. 101 fig. Lower Devonian Germany, SANDBERGER Jahrb. Nassau. Ver. Naturk. 42 1889.—*M. discus* p. 85 fig., *thedfordensis* p. 85 fig., SHIMER & SHROCK 129.

†*Microseris semiglobosa* p. 17 fig., ALLOITEAU 16.

†*Mictophyllum* discussed p. 30, *nobile* p. 30 fig., *semidilatatum* p. 31 fig., *modicum* p. 32 fig., *spp. n.*, sp. near *modicum* p. 33 fig., *multiseptatum* *sp. n.* p. 33 fig., *richardsoni* p. 34 fig., Upper Devonian N.W. Canada, SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Mochlophyllum* discussed p. 34, *maximum* p. 35 fig., SMITH 134.

†*Montastraea boloniensis* a *Prismatophyllum* p. 50 fig., SMITH 134.—*M.* as *Montastrea* [sic] *roemeriana* p. 119 fig., *travisensis* p. 119 fig., *costata* p. 119 fig., *imperatoris* p. 119 fig., SHIMER & SHROCK 129.—*M. antilliana* *sp. n.* p. 9 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Montlivaltia norica* p. 117 fig., SHIMER & SHROCK 129.—*M.* as *Montlivaltia* [sic] *pateriforme* p. 10 fig., *inaequale* p. 11 fig., *irregularis* p. 12 fig., *striatulata* p. 12 fig., *guerangeri* p. 13 fig., *hippuritiformis* p. 53 fig., *boissiana* p. 53 fig., *sougraignensis* *sp. n.* p. 79 fig. Senonian France, ALLOITEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Morchellastraea* *gen. n.* p. 25, genotype (by monotypy) *Astrea coniformis* p. 25 fig. Turonian France, ALLOITEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Naos* discussed p. 36, *pagoda* p. 36 fig., SMITH 134.

†*Nardophyllum* pp. 43, 53, *cuneiforme* p. 43 fig. SOSHKINA 137.

†*Neokoninckophyllum* discussed p. 158, *simplex* p. 159 fig. Oklahoma, *arcuatum* p. 161 fig. Texas, *gracile* p. 162 fig. Texas, *spp. n.* Lower Pennsylvanian, sp. A p. 163 fig., MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Neospongophyllum* pp. 24, 51, SOSHKINA 137.

†*Neostrophophyllum* pp. 37, 52, *litvinovitchi* *sp. n.* p. 37 fig. Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Neozaphrentis racinensis* p. 91 fig., *tenella* p. 91 fig., *wannensis* p. 91 fig., SHIMER & SHROCK 129.—*N. ? acuta* p. 56 fig., *N. ? palmeri* p. 57 fig., *N. parasitica* p. 57 fig., WILLIAMS 181.

†*Orbicella* *sp. cf. curta* p. 302, *lauensis* *sp. n.* p. 303 fig., *fijiensis* *sp. n.* p. 303 fig., *sukunai* *sp. n.* p. 303 fig., Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†*Orionastraea* pp. 151, 257, *stuckenbergi* pp. 153, 258 fig., *solida* pp. 155, 258 fig., *breviseptata* var. *major* var. *n.* pp. 157, 258 fig. U. Carboniferous and L. Permian Middle and South Urals, DOBROLYUBOVA Paleont. U.S.S.R. 5 3 1 1941.

*Pachycerianthus multiplicatus* development p. 142 fig., NYHOLM 99.

†*Pachygyra labyrinthica* p. 63 fig., ALLOITEAU 16.

†*Pachyphyllum woodmani* p. 97 fig., SHIMER & SHROCK 129.

†*Palaeocyclus ellipticus* *sp. n.* p. 102 fig. Lower Devonian Germany, SANDBERGER Jahrb. Nassau. Ver. Naturk. 42 1889

†*Palaeosmilia schucherti* p. 97 fig., SHIMER & SHROCK 129.

†*Palastraea decussata* p. 119 fig., SHIMER & SHROCK 129.

†*Paracaninia* discussed p. 137, *P. (?) sana* *sp. n.* p. 138 fig. Lower Pennsylvanian Texas, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Paralleynia* pp. 106, 249, *permiana* pp. 107, 249 fig., *biseptata* pp. 109, 249 fig., SOSHKINA 138.

†*Paralytopyllum* pp. 43, 53, *tenuis* p. 43 fig., SOSHKINA 137.

†*Parasmilia cornucopiae* *sp. n.* p. 7 fig., *centralis* var. *aquicostatus* var. *n.* p. 3 fig., Upper Cretaceous France, *gravesi* p. 3 fig., ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.—*P.* sp. p. 77 fig., ALLOITEAU 16.—*P. austiniensis* p. 122 fig., *bullardi* p. 122 fig., SHIMER & SHROCK 129.

†*Pattalophyllia compressa* p. 42, ALLOITEAU 16.—*P. cyclotitoides* p. 13 fig., LOSS 87.

†*Permia* synonymous with *Crassiphyllum* p. 289, discussed p. 290, *rota* p. 291 fig., *capax* p. 293 fig., *spp. n.* Lower Carboniferous Yorkshire, *caverna* p. 295, HUDSON Proc. Leeds Phil. Lit. Soc. (Sci. Sect.) 4 4 1945.

†*Petraia* septal plan p. 288 fig., HUDSON 72.

†*Phillipsastraea* cf. *torreana* p. 193, COTTREAU 32.—*P. discus* p. 36, *hennahii* p. 37 fig., *bouchardi* p. 38 fig., *verrilli* p. 38 fig., *whittakeri* sp. n. p. 39 fig., var. p. 40 fig., *currani* p. 40 fig., *macouni* sp. n. p. 41 fig., *exigua* p. 41 fig., *vesiculosa* sp. n. p. 42 fig., *cincta* sp. n. p. 43 fig., *boloniensis* p. 44 fig., Upper Devonian N.W. Canada, SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Pholidophyllidae* discussed pp. 40, 53, SOSHKINA 137.

†*Pholidophyllum* pp. 40, 53, *devonianum* pp. 40, 53 fig., SOSHKINA 137.

†*Phyllocaenia* [sic] *pediculata* p. 60 fig., *compressa* p. 61 fig., ALLOITEAU 16.

†*Phyllosmilium* synonymous with *Diploctenium* p. 50, *basochesi* p. 49 fig., *cuneolus* p. 50 fig., ALLOITEAU 16.

†*Pilophyllum* discussed p. 23, *sayuhoense* sp. n. p. 23 fig. Silurian Yunnan, WANG Bull. geol. Soc. China 24 1944.

†*Placocoenia senessei* p. 14 fig., *lanquinei* p. 15 fig., spp. n. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Placosmilium cymbula* p. 47 fig., *parkinsoni* p. 48 fig., *cuneiformis* p. 49 fig., *jacobi* sp. n. p. 78 fig. Senonian France, ALLOITEAU Mém. Mus. nat. Hist. nat. Paris N.S. 16 1 1941.

†*Platycyathus* see *Trochocyathus*.

†*Platytrachus stokesi* p. 121 fig., *merriami* p. 121 fig., SHIMER & SHROCK 129.—*P. sp.* p. 14 fig., WELLS 179.

†*Plerophyllum artiense* pp. 74, 242 fig., *tenuseptatum* pp. 76, 243 fig., *leptoconicum* pp. 78, 243 fig., *timorensis* pp. 79, 243 fig., *ornatum* pp. 81, 244 fig., *exceptatum* pp. 82, 244 fig., *variabile* sp. n. pp. 83, 244 fig. Upper Permian European Russia, SOSHKINA Paleont. U.S.S.R. 5 3 1 1941.

†*Pleurocora humile* p. 32 fig., *gemmans* p. 58 fig., *P. ramulosa* p. 58 fig., ALLOITEAU 16.—*P. coalescens* p. 119 fig., *tezana* p. 119 fig., SHIMER & SHROCK 129.

†*Pocillopora vitiensis* sp. n. p. 298 Miocene or Pliocene Lau Fiji, HOFFMEISTER Bull. Bishop Mus. Honolulu 181 1945.

†*Polycœlia* pp. 68, 241, *baytuganense* sp. n. pp. 69, 241 fig. Upper Permian European Russia, karpinsky pp. 70, 241 fig., *negativa* sp. n. pp. 72, 242 fig. Upper Permian European Russia, SOSHKINA Paleont. U.S.S.R. 5 3 1 1941.

†*Porpites rotuloides* p. 83 fig., *michiganensis* p. 83 fig., SHIMER & SHROCK 129.

†*Porpitidae* fam. n. (replacing *Palaeocyclidae*) p. 164, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Prismatophyllum hexagonum* p. 135 fig., BULVANKER 23.—*P. discus* p. 44, near *rugosum* p. 44 fig., *prisma* p. 45 fig., *quadrigeminum* p. 46 fig., var. *arcticum* p. 47 fig., cf. *magnum* p. 47 fig., *reticulatum* sp. n. p. 48 fig., *schucherti* p. 48 fig., *firthi* sp. n. p. 49 fig., *bompasi* sp. n. p. 49 fig., *parvulum* sp. n. p. 50 fig., Upper Devonian N.W. Canada, *boloniense* p. 50 fig., *davidsoni* p. 51 fig., SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Protolonsdaleiastraea* pp. 200, 265, *atbassarica* pp. 201, 265 fig., gorskyi pp. 202, 265 fig., DOBROLYUBOVA 48.

†*Protowentzelella* gen. n. (fam. *Lonsdaleidae*) pp. 179, 262, genotype (by original designation) *simplex* sp. n. pp. 180, 262 fig., var. *lamellaris* var. n. pp. 182, 262 fig., Lower Permian European Russia, PORFIRIEV Paleont. U.S.S.R. 5 3 1 1941.

†*Pseudobradiphyllum* gen. n. pp. 12, 61, genotype (by author's designation, pp. 12, 61) *Zaphrentis nikitini* pp. 13, 62 fig., *serpens* sp. n. (also as genotype [sic] p. 61) pp. 19, 66 fig. Upper Carboniferous Moscow Basin, DOBROLYUBOVA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 9 3 1940.—*P. nikitini* pp. 69, 70 fig., DOBROLYUBOVA 47.

†*Pseudocosphyllum geigeri* p. 44 fig., SOSHKINA 137.

†*Pseudomicroplasma* pp. 43, 53, *uralica* sp. n. p. 46 fig. Middle Devonian Urals, SOSHKINA Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 10 4 1941.

†*Pseudostylina* gen. n. p. 8, genotype (by monotypy) *kovenkoi* sp. n. p. 8 fig. Upper Jurassic Anatolia, ALLOITEAU Bull. sci. Bourgogne Dijon 9 1939.

†*Pseudozaphrentoides* discussed p. 143, *lepidus* p. 147 fig. Texas, *spatiosus* p. 149 fig. Texas, *nitellus* p. 151 fig. Oklahoma, **spp. n.** Lower Pennsylvanian, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Pseudozonophyllum* pp. 30, 52, *latum* p. 30 fig., SOSHKINA 137.

†Ptenophyllidae discussed pp. 24, 51, SOSHKINA 137.

†*Ptenophyllum torquatum* pp. 2, 22 fig., PRANTL 110.—*P.* pp. 27, 52, *simplex* p. 27 fig., SOSHKINA 137.

†*Ptychophyllum stokesi* p. 97 fig., SHIMER & SHROCK 129.—*P.* discussed p. 51, *P.* (?) *kindlei* p. 52 fig., *P.* (?) *whittakeri* p. 53 fig., **spp. n.** Upper Devonian N.W. Canada, *P. stokesi* p. 51 fig., SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Pycnactis* discussed p. 53, *mitratus* p. 53 fig., SMITH 134.

†*Reussastraea lamellosissima* p. 31 fig., ALLOITEAU 16.

†*Rhabdocyclus parvulus* p. 85 fig., SHIMER & SHROCK 129.

†*Rhabdophyllia tenuisepta* **sp. n.** p. 10 fig. Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Rhipidogyra granulosa* **sp. n.** p. 16 fig. (as *granulata* [sic] p. 21) Upper Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. (5) 9 1939.

†*Rhipidophyllum* **gen. n.** p. 100, genotype (by monotypy) *vulgare* **sp. n.** p. 100 fig. Lower Devonian Germany, SANDBERGER Jahrb. Nassau. Ver. Naturk. 42 1889.

†*Rhizophyllum* see *Calceola*.

†*Rhodophyllum* see *Rodophyllum*.

†*Rhopalophyllum* pp. 28, 52, *lacina-tum* p. 28 fig., SOSHKINA 137.

†*Rodophyllum* discussed p. 153, *texanum* **sp. n.** p. 155 fig. Lower Pennsylvanian Texas, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

†*Rotiphyllum* septal plan p. 288 fig., HUDSON 72.

†*Sagartia trogiodytes* development p. 167 fig., NYHOLM 99.

†*Schizophyllum* pp. 24, 51, *luchelense* p. 24 fig., SOSHKINA 137.

†*Schlotheimophyllum* **gen. n.** p. 18, genotype (by original designation) *Fungites patellatus* p. 18 fig. Silurian Gotland, SMITH Spec. Pap. Geol. Soc. Amer. 59 1945.

†*Schluteria rugosa* p. 134 fig., BULVANKER 23.

†*Septastraea* as *Septastrea* [sic] *marylandica* p. 121 fig., SHIMER & SHROCK 129.

†*Siderastraea requieni* p. 66 fig., ALLOITEAU 16.—*S.* as *Siderastrea* [sic] *scotica* **sp. n.** p. 6 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Sideroseris* **gen. n.** (fam. Siderastroidae) p. 6, genotype (by original designation) *durhami* **sp. n.** p. 6 fig. Eocene Barbados, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†*Sinophyllum* pp. 63, 240, *shtchugoriense* **sp. n.** pp. 64, 240 fig. Permian North Urals, *acostatum* pp. 65, 240 fig., SOSHKINA Paleont. U.S.S.R. 5 3 1 1941.

†*Siphonophrentis gigantea* p. 93 fig., SHIMER & SHROCK 129.

†*Smithia boloniensis* a *Phillipsastraea* p. 44 fig., SMITH 134.

†*Sparganophyllum* pp. 23, 51, SOSHKINA 137.

†*Sphenotrochus* **sp. ind.** p. 12 fig., ALBRECHT & VALK 13.—*S. fragarioides* **sp. n.** p. 14 fig. Eocene Barbados, *S. (Eusthenotrochus) senni* **sp. n.** p. 17 fig. Miocene Martinique, WELLS Mem. Geol. Soc. Amer. 9 2 1945.

†Spongophyllidae discussed pp. 23, 51, SOSHKINA 137.

†*Spongophylloides* discussed p. 1, *grayi bohemicum* **sp. n.** [sic] p. 2 fig. Silurian Bohemia, PRANTL Bull. intern. Acad. Sci. Bohême Prague 1939.

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†*Stereocorypha* gen. n. (fam. Streptelasmidae) p. 84, genotype (by original designation) *annectans* p. 86 fig. Texas, *spissata* p. 88 fig. Oklahoma, spp. n. Lower Pennsylvanian, MOORE & JEFFORDS Pub. Univ. Texas 4401 1945.

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†*Streptelasmacea* discussed pp. 23, 51, SOSHKINA 137.

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# 5. ECHINODERMA

ARRANGED BY

A. G. BRIGHTON, M.A.

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†*Recurvaster* gen. n. for type *R. stevensensis* sp. n. Cretaceous Denmark, NIELSEN Biol. Skr. Kjøbenhavn 2 5 1943 pp. 40-41 fig. 28, pl. ii fig. 3; *communis* p. 45 pl. iv fig. 33, *echinatus* pp. 41-43 pl. ii figs. 4-9, spp. n. Cretaceous Denmark, Id.; *mammillatus* p. 43 pl. ii figs. 10-14, *M. sp.* pl. ii figs. 15-16, Id.

†*Stauranderaster miliaris* pp. 63-65 pl. iv fig. 35, *mixtus* p. 63 pl. iv figs. 26-28, *speculum* p. 64 pl. iv fig. 36, spp. n. Cretaceous Denmark, NIELSEN Biol. Skr. Kjøbenhavn 2 5 1943; *boysii* p. 62 pl. iv figs. 24-25, *pyramidalis* p. 63, Id.

†*Stellaster schulzei*, SOUKUP 109 p. 1 fig.

†*Teichaster anchylus* sp. n. Cretaceous Denmark, NIELSEN Biol. Skr. Kjøbenhavn 2 5 1943 pp. 54-55 fig. 9, pl. iii figs. 14-15, 17; *favosus* figs. 7-8 pl. iii fig. 16, *retiformis* p. 55 fig. 10, pl. iii figs. 18-19, Id.

†*Valettaster granulatus* sp. n. Cretaceous Denmark, NIELSEN Biol. Skr. Kjøbenhavn 2 5 1943 p. 65 pl. iv fig. 37; *ocellatus*, Id. p. 65 pl. iv fig. 29.

## OPHIUROIDEA

*Amphioplus caelatus* sp. n. Hawaii, ELY Bull. Bishop Mus. Honolulu 176 1942 pp. 39-40 figs. 8a-b.

*Amphipholis squamata*, ELY 40 p. 36 fig. 7.

*Amphiura immira* sp. n. Hawaii, ELY Bull. Bishop Mus. Honolulu 176 1942 p. 36 fig. 6.

*Distichophis* gen. n. p. 46 for type *D. clarki* sp. n. Hawaii, ELY Bull. Bishop Mus. Honolulu 176 1942 pp. 47-48 fig. 12.

*Ophiactis modesta* p. 41 fig. 9, pl. x fig. A, *savignyi* p. 42 fig. 10, pl. x fig. B, ELY 40.

*Ophiocoma brevipes* p. 56 fig. 16, pl. xiii fig. C, *erinaceus* p. 52 figs. 4-5, 14, pl. xii fig. A, *insularia* p. 57 fig. 17, pl. xiii fig. A with var. *variegata* p. 60 pl. xiii fig. B, *O. parva* p. 60 fig. 18, *pica* p. 54 fig. 15, pl. xii fig. B, *scolopendrina* p. 52, ELY 40.

*Ophionereis porrecta*, ELY 40 p. 49 fig. 13, pl. xi fig. B.

*Ophiopholis aculeata*, OLSEN 89.

*Ophiopluteus minor* sp. n. North Atlantic, OLSEN Bergens Mus. Aarb. 1942 p. 3 figs. 1, 3; *compressus* p. 7 fig. 4, *dubius* p. 7 figs. 2, 5, Id.

*Ophiothrix demessa*, ELY 40 p. 44 fig. 11, pl. xi fig. A.

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†*Ambicocrinus* gen. n. for type *Thysanocrinus arborescens* Talbot 1905 Devonian U.S.A., KIRK Amer. J. Sci. New Haven 243 p. 353.

†*Ancyrocrinus* root, LOWENSTAM 74 p. 21 pls. v-vi.

†*Aphelecrinus dilatatus* pp. 117 118 pl. ii figs. 5-15, *parvus* p. 118 pl. iii figs. 2-5, *roscobiensis* p. 118 pl. iii figs. 16, 18, 22, spp. n. Carboniferous Scotland, WRIGHT Geol. Mag. London 82.

†*Apographiocrinus* ? *scoticus*, WRIGHT 118 p. 122 text-fig. 5, pl. iv figs. 9, 11-12.

†*Bockia cucumis* p. 41 pl. viii fig. 6, *laevis* p. 40 pl. viii figs. 1-3, *neglecta* p. 39 figs. 18-22, 26-32, pls. v-vii, *sculpta* p. 40 fig. 33, pl. viii figs. 4-5, *B.* ? sp. p. 36 figs. 23-25, pl. viii fig. 7, HECKER 54.—*B.* ? sp., REGNÉLL 92 p. 67 pl. ii fig. 10.

†*Botryocrinus montis-guyonensis* sp. n. Devonian France, DELPEY Bull. Soc. géol. Fr. (5) 12 1942 pp. 15-19 figs. 1-5.

†*Cadiscocrinus* gen. n. p. 346 for type *C. southworthi* sp. n. Devonian U.S.A., KIRK Amer. J. Sci. New Haven 243 pp. 348-350 pl. i figs. 1-3.

†*Carabocrinus treadwelli* sp. n. Ordovician U.S.A., SINCLAIR Amer. Midl. Nat. Notre Dame 34 pp. 715-716 pl. ii figs. 14-16 ; *huronensis*, Id. p. 716 pl. ii fig. 17.—*C.* sp., ROY 96 p. 81 fig. 42.

†*Cromyocrinus simplex*, WRIGHT 118 p. 116 pl. iii fig. 20.

†*Ctenocrinus aculeatus* sp. n. pp. 5-9 pl. i figs. 1-8, *pyramidalis* sp. n. pp. 17-19 pl. ii figs. 6-7, Devonian Belgium, UBAGHS Bull. Mus. Hist. nat. Belg. 21 15 ; *acicularis* p. 7 pl. i fig. 9, *acidepressus* p. 14, cf. *decadactylus* p. 15 fig. 2, *decadactylus densalternans* p. 16, *C.* aff. *gracilis* p. 9 pl. ii figs. 1-5, *C.* sp. n. p. 19 fig. 3, *C.* sp. indet. p. 3 fig. 1, Id.—*C.* aff. *pinnatus*, KETTNER & PRANTL 64 p. 13 figs. 4-6.—*C. aculeatus* pl. i figs. 5-7, aff. *gracilis* pl. i fig. 8, *C. rhenanus* pl. i figs. 1-2, *C.* sp. indet. pl. i figs. 3-4, 9-10, UBAGHS 113 p. 3.

†*Culicocrinus inventricosus intemperans*, DAHMER 26 p. 270 fig. 34.

†*Dactylocrinus spiniferus* sp. n. Devonian Russia, YAKOVLEV Fauna Main Devonian Field 1 1941 pp. 326-327 pl. i figs. 3-4 ; *oligoptilus*, Id. p. 325 pl. i figs. 1-2.

†*Dolatocrinus* cf. *bulbaceus*, GOLDRING 48 p. 62.

†*Gaulocrinus* gen. n. for type *Stemmatocrinus trautscholdi* Wachsmuth & Springer 1885 Carboniferous U.S.A., KIRK J. Wash. Acad. Sci. 35 pp. 180-182.

†*Gennaeocrinus mourantae*, GOLDRING 48 p. 60 pl. i fig. 4.

†*Gilbertocrinus multicalcaratus*, GOLDRING 48 p. 60.

†*Glenotremites* (*Conometra* ?) *brünichi* sp. n. Cretaceous Denmark, ROSENKRANTZ Medd. dansk geol. Foren. 10 1944 pp. 453-455 fig. 4.

†*Griphocrinus* gen. n. for type *Rhodocrinus nodulosus* Hall 1862 Devonian U.S.A., KIRK Amer. J. Sci. New Haven 243 p. 350 ; *halli* p. 351, *insculptus* p. 352, *wachsmuthi* p. 353, Id.

†*Holcoocrinus* gen. n. for type *Graphiocrinus longicirriifer* Wachsmuth & Springer 1889 Carboniferous U.S.A., KIRK Amer. J. Sci. New Haven 243 pp. 517-521.

†*Hybocrinus nitidus* p. 713 pl. ii figs. 1-4, *pyxidatus* p. 713 pl. ii figs. 5-7, spp. n. Ordovician U.S.A., SINCLAIR Amer. Midl. Nat. Notre Dame 34 ; *pristinus*, Id. p. 712 pl. ii figs. 8-10.

†*Hydreionocrinus artus* sp. n. Carboniferous Scotland, WRIGHT Geol. Mag. London 82 pp. 118-119 pl. ii figs. 16-24 ; *woodianus*, Id. p. 119 pl. ii figs. 1-4.

†*Megistocrinus depressus*, GOLDRING 48 p. 61.

†*Melocrinites powelli*, GOLDRING 48 p. 62 pl. i fig. 5.

†*Mooreocrinus* gen. n. for type *Cromyocrinus geminatus* Trautschold 1867 Carboniferous Europe, WRIGHT & STRIMPLE Geol. Mag. London 82 p. 221.

†*Pageocrinus heckeri* sp. n. Devonian Russia, YAKOVLEV Fauna Main Devonian Field 1 1941 pp. 327-328 pl. ii fig. 1.

†*Palaeocrinus hudsoni* sp. n. Ordovician U.S.A., SINCLAIR Amer. Midl. Nat. Notre Dame 34 p. 715 pl. ii figs. 11-13.

†*Parabotryocrinus* **gen. n.** with type *P. tschudovenski* **sp. n.** Devonian Russia, YAKOVLEV Fauna Main Devonian Field 1 1941 pp. 328–329 pl. ii fig. 2.

†*Pithocrinus* **gen. n.** p. 341 for type *P. cooperi* **sp. n.** Devonian U.S.A., KIRK Amer. J. Sci. New Haven 243 pp. 343–344 pl. i figs. 4–7; *bifrons* p. 346, *intrastigmatus* p. 345, *waliszewskii* p. 344, Id.

†*Poteriocrinites kopfi*, GOLDRING 48 p. 64 pl. i fig. 6.

†*Scotiocrinus* **gen. n.** for type *Pachylocrinus tyriensis* Wright 1937 Carboniferous Scotland, WRIGHT Geol. Mag. London 82 pp. 120–121 pl. iv figs. 1–3, 7; *ardrossensis* pp. 120–121 pl. iv figs. 4–6, 10, *yoredalensis* p. 121 pl. iv fig. 8, **spp. n.** Carboniferous Britain, Id.

†*Thamnocrinus springeri*, GOLDRING 48 p. 57 pl. i figs. 1–3.

†*Tyriocrinus* **gen. n.** for type *T. latus* **sp. n.** Carboniferous Scotland, WRIGHT Geol. Mag. London 82 pp. 114–116 figs. 1–4, pl. iii figs. 1, 6–15, 17, 19, 21, 23.

†*Ulocrinus* discussion of genus p. 222, *buttsi* p. 222 figs. 4–5, pl. ix figs. 8–9, *kansasensis* p. 224 fig. 1, *sangamonensis* p. 224 fig. 3, WRIGHT & STRIMPLE 119.

†*Ureocrinus* **gen. n.** for type *Poteriocrinus bockschii* Geinitz 1845 Carboniferous Europe, WRIGHT & STRIMPLE Geol. Mag. London 82 pp. 225–227 pl. ix figs. 1–5, 7, 10; *doliolus*, Id. p. 225 pl. ix fig. 6.

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[Vacant.]

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*Amecystis cordiformis* **sp. n.** Ordovician Canada, SINCLAIR Canad. Field Nat. 59 pp. 72–73 pl. ii fig. 1.

*Calix* **sp.**, DELPEY 33 p. 265 fig. 14.

*Caryocrinites septentrionalis* **sp. n.** Ordovician Sweden, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108 pp. 103–106 pl. iii fig. 15, pl. iv fig. 1; *C. ?* **sp.**, Id. p. 106 pl. iv fig. 2.

*Caryocrinus ornatus*, DELPEY 33 p. 261 fig. 9.

*Caryocystis granatum*, DELPEY 33 p. 256 fig. 5.

*Caryocystites lagenalis* **sp. n.** Ordovician Sweden, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108 pp. 116–118 pl. iv figs. 10–11, pl. v fig. 1; *angelini* p. 112 pl. iv figs. 6–9, **sp. n.** 118, Id.

*Cheirocrinus holmi* **sp. n.** Ordovician Sweden, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108 pp. 69–70 figs. 6–7, pl. ii fig. 11; *leuchtenbergi* p. 72 figs. 8–9, pl. ii figs. 12–14, cf. *nodosus* p. 75 fig. 10, Id.—*C. sp.*, ROY 96 p. 80 fig. 41.—*C. logani*, SINCLAIR 104 p. 711 pl. i fig. 11.

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*Glyptocystites grandis* **sp. n.** Ordovician Canada, SINCLAIR Canad. Field Nat. 59 p. 73 pl. ii figs. 4–5.

*Glyptosphaera leuchtenbergi*, DELPEY 23 p. 264 fig. 11.

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*Hemicosmites oelandicus* sp. n. Ordovician Sweden, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108 pp. 99-100 pl. iii fig. 12; *extraneus*, Id. p. 100 pl. iii figs. 13-14.—*H. pyriformis*, DELPEY 33 p. 259 figs. 6-7.

*Hesperocystis* gen. n. p. 709 for type *H. deckeri* sp. n. Ordovician U.S.A., SINCLAIR Amer. Midl. Nat. Notre Dame 34 pp. 711-712 fig. 1, pl. i figs. 9-10.

*Holocystites*? sp., REGNÉLL 92 p. 183 pl. xv figs. 2-4.

*Lovénicystis* gen. n. for type *Apio-cystites angelini* Jaekel 1899 Silurian Gotland, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108 pp. 91-97 figs. 14-16, pl. iii figs. 4-11.

*Platycystites bassleri* sp. n. Ordovician U.S.A., SINCLAIR Amer. Midl. Nat. Notre Dame 34 p. 709 pl. i figs. 1-5; cf. *bromidensis* p. 708 pl. i fig. 6, cf. *levatus* p. 708 pl. i figs. 7-8, Id.

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*Schizocystis armatus*, DELPEY 33 p. 261 fig. 8.

"*Sphaeronites? dalecarlica*," REGNÉLL 92 p. 184 pl. xiv fig. 13 [gen. indet.].

*Sphaeronites globulus* p. 168 fig. 19 (4-5), pl. xi figs. 10-11, pl. xii figs. 1, 3, 5, pl. xiii fig. 1, *pomum* p. 161 figs. 19 (1-3, 7-9), 20-21, pl. i figs. 2-3, 5, pl. xi figs. 6-9, 12, pl. xii figs. 2, 4, 6, pl. xiii fig. 2, REGNÉLL 92.

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*Ateleocystis huxleyi*, REGNÉLL 92 p. 196.

*Dendrocystites kuckersiana* sp. n. Ordovician USSR, HECKER Trav. Inst. Paléont. Acad. Sci. URSS. 9 4 1940 p. 23 figs. 14-16, pl. iv figs. 1-4; *rossica*, Id. p. 29 fig. 17, pl. iv figs. 5-9.—*D.* sp., REGNÉLL 92 p. 194 pl. ii fig. 9.

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*Agelacrinus* sp., DELPEY 33 p. 266 fig. 15.

*Cyathotheca suecica*, REGNÉLL 92 p. 200 fig. 27, pl. i fig. 6.

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*Stromatocystites balticus*, REGNÉLL 92 p. 198 fig. 26.

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*Microblastus* gen. n. for type *M. pocilloformis* sp. n. Permian Timor, EYKEREN N. Jahrb. Min. Geol. Paläont. Stuttgart 86B 1942 p. 283 figs. 1-2, pl. xvii figs. 1-3.

*Orbitremites malaianus* var. *lineata* var. n. Permian Timor, EYKEREN N. Jahrb. Min. Geol. Paläont. Stuttgart 86B 1942 p. 289 pl. xvii figs. 5-6.



*Paracystis ostrogothicus*, REGNÉLL 92 p. 185 figs. 23-24, pl. xv fig. 5.

*Pentremites spicatus* var. *altipelvis* var. n. p. 3 figs. 3, 4, 6, 11-13 and var. *porrecta* var. n. p. 3 figs. 1-2, 5, 7, 9, 10, Carboniferous U.S.A., HAAS Amer. Mus. Nov. No. 1289; *P. brevis* p. 8 figs. 32, 34, 39-41, *cherokeeus* p. 5 figs. 14-16, *elegans* p. 6 figs. 17-19, *hambachi*? p. 8 figs. 33, 38, 42, *lyoni* p. 7 with forma *gracilens* p. 8 figs. 27, 36-37 and forma *typica* p. 7 figs. 29-31, 35, *P. okawensis* p. 7 figs. 20-22, *pyramidatus* p. 6 figs. 23-26, 28, *spicatus* with forma *typica* p. 1 fig. 8, 1n.

*Pterotoblastus brevialetus* var. *intermedia* var. n. Permian Timor, EYKEREN N. Jahrb. Min. Geol. Paläont. Stuttgart 86B 1942 p. 292 pl. xvii figs. 10-11.

*Schizoblastus ornatus* sp. n. p. 293 fig. 5, pl. xvii figs. 12-13, *jonkeri* var. *excavata* var. n. p. 290 pl. xvii figs. 8-9, *pseudodelta* var. *furcata* var. n. p. 290

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*Tormoblastus bodae*, REGNÉLL 92 p. 191 fig. 25, pl. xv fig. 6.

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†*Cyclocystoides insularis* pp. 220-223 fig. 30, pl. xv fig. 9, *lindströmi* pp. 216-219 figs. 28-29, pl. xv figs. 7-8, spp. n. Silurian Sweden, REGNÉLL Medd. Lunds Geol.-Min. Inst. No. 108. [Cyclocystoidea].

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# 6. VERMES

ARRANGED BY  
STEPHEN PRUDHOE.

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## TITLES

1.—**Declaration 6.** On the need for new names to be clearly indicated as such on their first publication and on the need for avoiding the publication of names as new on more than one occasion. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** (6) 1943 pp. 41–45.

2.—**Opinion 2.** The nature of a systematic name. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 11 1944 pp. 87–94.

3.—**Opinion 3.** The status of publications dated 1758. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 12 1944 pp. 95–102.

4.—**Opinion 4.** The status of names published as manuscript names. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 13 1944 pp. 103–114.

5.—**Opinion 5.** The status of certain pre-Linnean names reprinted subsequent to 1757. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 14 1944 pp. 115–126.

6.—**Opinion 6.** On the type of a genus "A—," containing two species, "A— b—" and "A— c—," where the generic name in question was published on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 15 1944 pp. 127–138.

7.—**Opinion 7.** On the interpretation of the expression "n.g., n.sp." under Article 30(a) of the International Code, as respects generic names published on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* **1** 16 1945 pp. 139–146.

8.—**Opinion 8.** On the retention of "ii" or "i" in specific patronymic names, under Article 14, third paragraph, and Article 19 of the International Code. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 17 1945 pp. 147–158.

9.—**Opinion 10.** The designation of genotypes for genera published with identical limits, on, or before, 31st

December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London **1** 19 1945 pp. 171–178.

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### NEMERTEA

### MESOZOA

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Washington, KAY Ohio J. Sci. 45 1945 p. 111 3 figs.

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experimentally in *Gambusia affinis*, *Phalloceros caudimaculatus* p. 128 figs. 7 9-11; *angelae* sp. nov. (furcocercous) in *Ameriana* spp., metacerc. encysts experimentally in tadpole of *Lymnodynastes tasmaniensis* p. 130 figs. 12-14, S. Australia, JOHNSTON & SIMPSON Trans. roy. Soc. S. Australia 68 1944.—*C. meringura*, p. 276 figs 1, 2, and *trano-glandis*, p. 277 figs. 12, 13, in *Goniobasis bivescens*, *nothrica*, p. 276 figs. 8 9, and *neustica*, p. 275 figs. 10 11, in *Pleurocerca acuta*, *nyctetica* in *Goniobasis depygis* p. 273 figs. 3-7, spp. nov., xiphidocercariae, Indiana, SEITNER J. Parasit. Lancaster Pa. 31 1945.—*C. indica* xxvi Sewell possibly larva of *Cotylophoron cotylophorum*, MUDALIAR Proc. 31st Indian Sci. Congr. Delhi 1944 pt. iii p. 112.—*C. laevicardium* (? Fellodistomatid) in bivalve, *Laevicardium mortoni*, unencysted metacerc. in ctenophore, *Mnemioopsis leidy*, pp. 203-207 7 figs., *nassa* (furcocercous) in *Nassa obsoleta* pp. 207-212 4 figs., spp. nov., U.S.A., MARTIN Trans. Amer. micr. Soc. Menasha 64 1945.—*C. ocellata* La Val. (syn. *elvae* Miller, 1923) and *C. stagnicolae* Talbot, 1936, assigned to *Trichobilharzia*, McMULLEN & BEAVER Amer. J. Hyg. Baltimore 42 1945 pp. 135, 138.—*C. (Furcocercaria) tetradena* in *Plotiopsis tatei* pp. 229-233 figs. 1-5; *notopalae* in *Notopala hanleyi* pp. 234-242 figs. 6-16, spp. nov., South Australia. JOHNSTON & BECKWITH Trans. roy. Soc. S. Aust. 69 1945.—*C. szidati* Anders. encysting experimentally in minnows; adult, an undescribed *Linstowiella*, developing experimentally in chicks and great blue heron, ANDERSON J. Parasit. Lancaster Pa. 31 Suppl. 1945 p. 20.

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*Choanophorus* gen. nov., Pronocephalidae, type *rovirosai* sp. nov. in intestine of freshwater turtle, *Dermatemys mawii*, Mexico, CABALLERO Y C. An. Inst. Biol. Mexico 13 1942 pp. 83-86 figs. 1, 2.

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*Cotylyrus cornutus* (Rud.) tetracotyle naturally infesting *Limnaea palustris*, adult experimentally in *Aix galericulata*, France, TIMON-DAVID Bull. Mus. Hist. nat. Marseille 3 1943 pp. 17-21 fig.—*C. flabelliformis* (Faust) metacerc. in *Limnaea*, *Stagnicola*, *Bulimnea* and *Fossaria* spp., N. Michigan, COBT, BRACKETT & OLIVIER J. Parasit. Lancaster Pa 30 1944 pp. 309-321.

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int. of *Eutropichthys vacha*, India, DAYAL Proc. 31st Indian Sci. Congr. Delhi **1944** Pt. iii p. 88.

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1-4 figs 12, *sera* in int. of *Chthonerpeton indistinctum* pp. 5-8 fig. 3, **spp. nov.**, Uruguay, CORDERO An. Acad. Bras. Cienc. Rio de J. **16** 1 1944.

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*diminuta* (Rud.) in rats and mice, p. 441 pl. lx, Spain, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 4 1944.—*H. serpentulus sturni* and *H. serp. turdi*, subsp. nov. in starling and robin respectively, N. America, J. Parasitol. Lancaster Pa. 31 1945 pp. 224 225.—*H. furcoterina* sp. nov. in *Anhinga melanogaster*, Celebes, DAVIS Trans. Amer. micr. Soc. Menasha 64 1945 p. 306 3 figs.—*H. serrata* Fuhrm. in sm. int. of *Streptopelia senegalensis*, W. Africa, CLAPHAM J. Helminth. London 21 2–3 1945 p. 90.—*H. javanensis* sp. n. in tree duck, *Dendrocygna javanica*, Java, DAVIS Trans. Amer. micr. Soc. Menasha 64 1945 p. 213 4 figs.—*H. nana* in syrian hamster, *Cricetus auratus*, STUNKARD J. Parasitol. Lancaster Pa. 31 1945 p. 151.

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1927, in cat, cysticeroids in *Tarentola mauritanica*, p. 285 pl. xxxi fig. 1-6, Spain, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 4 1944.—*J. gervaisi* (Setti) in *Genetta genetta senegalensis*, Abyssinia, FUHRMANN & BAER Bull. Soc. neuchâtel. Sci. nat. 68 [1944] pp. 129-131.

*Krimi* gen. nov., Dilepidinae, *chryso-colaptis* sp. nov. in woodpecker, *Chryso-colaptis guttacristatus stricklandi*, Ceylon, BURT Ceylon J. Sci. 22 B 1944 pp. 161-164 2 figs.

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in *Vulpes v. silaceus* p. 94 fig. 30, Spain, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 4 1944.—*M. lineatus* (Gze.) onchospheres and cysticeroids found naturally and experimentally in *Oribatid* mites, *Trichoribates*, *Scheloribates*, *Punctoribates* spp., U.S.S.R., SOLDATOVA C.R. Acad. Sci. Moscou N.S. 45 1944 pp. 310-312 3 figs.

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*Oochoristica tuberculata* (Rud.) re-described from *Lacerta muralis*, Spain, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 4 1944 p. 192.—*O. indica* sp. nov. in sm. int. of *Calotes versicolor*, India, MISRA Proc. Indian Acad. Sci. 22B 1945 p. 1, 3 figs.

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*Paronia zavattarii* sp. nov. in *Colinus striatus erlangeri*, Abyssinia, FUHRMANN

& BAER Bull. Soc. neuchâtel. Sci. nat. 68 [1944] pp. 114–115 figs. 1–3.

*Paruterina* Fuhrmann, 1906, generic diagnosis, p. 301; *candelabraria* (Gze.) in *Syrnium aluco*, p. 302 figs. 1–5; *vesiculigera* (Kr.) in *Cypselus apus*, p. 303 figs. 6–8, Spain, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 4 1944 pl. xli.

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figs. 4–6; *cooperi* in *Callionymus calaur-opomus* (type-host) and *Cantherines hippocrepis* p. 245 figs. 7–8; *jaenschii* in *Phalacrocorax*, *Larus*, *Pelecanus*, *Chlidonias* spp. p. 245 figs. 11–13; *ellisi* in *Chenopsis atrata* p. 247 figs. 9–10; *pomatostomi* in *Pomatostomus superciliosus* p. 247 fig. 17; *grallinae* in *Grallina cyanoleuca* p. 247 figs. 14–16 spp. nov., S. Australia, JOHNSTON & MAWSON Trans. Roy. Soc. S. Aust. **69** 1945.—*C. tasmanica* sp. nov., in *Coelorrhynchus australis*, Tasmania p. 149 figs. 46–48; *C. physculi* sp. nov., in cod, *Physculus barbatus*, Tasmania, p. 150 fig. 49; *C. convoluta* (Fourm.) in *Thalassarche melanophrys*, *Macronectes giganteus*, Australia, p. 151 figs. 50–51, JOHNSTON & MAWSON Rep. B.A.N.Z. Antarct. Res. Exped. 1929–31 **5 B** 2 1945.—*C. mucronata* (Molin) larvae developing, experimentally, in earthworms, *Lumbricus* spp., SKARBILOVICH C.R. Acad. Sci. Moscou N.S. **48** 1945 pp. 687–688.—*C. caudinflata* and *C. annulata*, comparative morphology of larvae developing, naturally and experimentally, in earthworms, *Allobophora caliginosa*, *Eisenia foetida*, WEHR & ALLEN Proc. helminth. Soc. Wash **12** 1945 pp. 12–14 1 fig.

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*Desmodora serpentulus* de Man p. 39 pl. viii fig. 38; *scaldensis* de Man pp. 39-40 pl. viii fig. 39 a-b; *communis* Bütschli pp. 40-41 pl. viii fig. 40 a-d, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*D. microchaeta* Allg., Mediterranean, ALLGÉN Zool. Jahrb Jena (Syst.) 76 1942 p. 42.—*D. pontica* Filipj., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943 pp. 361-362 fig. 30.—*D. microchaeta* Allg. pp. 289-290 fig. 11; *intermedia* Allg. pp. 290-291 fig. 12, Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1943.



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*Desmoscolex strandi* Allg., Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 302-303 fig. 18.

*Dichromadora parapocilosoma* (Micoletz), Mediterranean, STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 223 fig. 4.—*D. parapocilosoma* (Micoletz.), Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 370-371 fig. 39.

*Dignathonema norvegicum* Allg., Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1943 p. 288 fig. 10.

*Diocotphyne renale* (Gze.) in coati, *Nasua solitaria*, and red wolf, *Chrysocyon brachyurus*, Argentina, GROSSO ET AL. Gaceta Vet. Buenos Aires **6** 1944 pp. 2-11 66-67.—*D. renale* (Gze.) in *Canis lupus*, N. America. ERICKSON Amer. Midl. Nat. Notre Dame **32** 1944 p. 365.—*D. renale* (Gze.), life-history, first stage larva developing, experimentally, in branchiobdellid leeches, second stage larva, nat. and experim., in bullhead, *Ameiurus m. melas*, adult, experim., in ferrets, WOODHEAD J. Parasit. Lancaster Pa. **31** Suppl. 1945 p. 12.

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*Diplotrichaena pavlovskiyi* sp. nov., in air-sacs of *Chettusia leucura*, Turkestan, STROM Mag. Parasit. Moscou **8** 1940 pp. 232-235 4 figs.—*D. sp. innom.* in peritoneal cavity of buff backed egret, *Bubulcus ibis*, W. Africa, CLAPHAM J. Helminth London **21** 2-3 1945 p. 92.

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*Ditylenchus destructor* sp. nov., in potato and dandelion, *Taraxacum officinale*, Idaho, p. 28 figs. 1-2; *dipsaci* (Kühn) in teasel, *Dipsacus fullonum*, Oregon, p. 30 fig. 3, THORNE Proc. helminth Soc. Wash. **12** 1945.

*Dolicholaimus nudus* sp. nov., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 339-340 fig. 11.—*D. marioni* de Man p. 35 pl. vii fig. 34 a-d; *obtusus* Bressl. & Stekh. p. 36 pl. viii fig. 35 a-d, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*D. obtusus* Bressl. & Stekh., Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **18** 12 1942 p. 2.—*D. tenuicaudatus* Allg., Norway, ALLGÉN

Zool. Jahrb. Jena (Syst.) **76** 1943 p. 283 fig. 6.—*D. nudus* sp. nov., Alexandria fisheries ground, STEKHOVEN Note Ist. Biol. mar. Rovigno **2** 25 1943 pp. 5-6.

*Dorylaimus monohystera* de Man, *pratensis* de Man, in bog-moss, Hungary, Soós Állat. Kozlem. Budapest **37** 1940 p. 77.—*D. maritimus* Ditlevsen, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 36-37 pl. viii fig. 36 a-c.—*D. filiformis* Bast. pp. 15, 17, fig. 3, *tritici* Bast. pp. 17-18 fig. 4, Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **19** 65 1943.—*D. parhomalopapillatus* sp. nov., Parc. National Albert, pp. 20-23 6 figs; *flavomaculatus* Lint. pp. 23-24 fig. 4; *stagnalis* Duj. pp. 24-26 4 figs.; *filiformis* Bast. pp. 27-28 fig. 6, Belgian Congo, STEKHOVEN Explor. Parc. Nation Albert, Bruxelles, Mission H. Damas (1935-36) **10** 1944.—*D. insignis* on roots of tea-tree p. 3 fig. 2 a-d; *intratriatus* in soil around roots of tea-tree p. 5 fig. 3 a b, spp. nov., *biroi* Daday var. *zelandicus* var. nov. in soil p. 6 fig. 4 a-e, Ceylon, Loos Ceylon J. Sci. **23 B** 1945.

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*Draconema cephalatum* Cobb, Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1943 p. 294 fig. 14.

*Dracunculus insignis* (Leidy 1858) in feet of raccoon, *Procyon lotor lotor*, East Texas, CHANDLER Amer. J. trop. Med. Baltimore **22** 1942 pp. 153-157 3 figs.—*D. medinensis* (Linn.) in fascia between skin and muscles in tibial region of hind leg of *Mustela c. cicognanii*, New York, GOBLE J. Mammalogy **23** 1942 p. 221.

*Echinocephalus spinosissimus* (Linst.) in *Heterodontus philippi* and *Urolophus testaceus*, N. S. Wales, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. **67** 1943 pp. 188 190 fig. 9.—*E. uncinatus* (Mol.) larvae encysted in *Platycephalus fuscus*, *Pagrosomus auratus*, *Sillaginodes punctatus*, *Pseudolabrus psittaculus*, S.

Australia, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. **69** 1945 p. 117.—*E. uncinatus* Molin larvae in molluscs, *Polinices conica*, *Katylisia scalarina*, and fishes, *Platycephalus* spp., etc., Australia, *aelobati* MacCallum considered a syn. of *uncinatus*, JOHNSTON & MAWSON Rep. B.A.N.Z. Antaret. Res. Exped. 1929-31 **5 B** 2 1945 p. 141.

*Echinuria* sp. innom in oesophagus of night heron, *Nycticorax violaceus*, Antigua, CLAPHAM J. Helminth. London **21** 2-3 1945 pp. 93-95 fig. 5.

*Elaphostrongylus odocoilei* Hobmaier and Hobm., 1934, in Columbian black-tailed deer. *Odocoileus hemionus columbianus*, N. America, DOUGHERTY Parasitology Cambridge **36** 1945 p. 205 fig. 11.

*Eleutherolaimus leptosoma* (de Man), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 60-61 pl. xii fig. 66 a-b.—*E. leptosoma* (de Man), Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1942 pp. 75-76.—*E. elegans* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 255 fig. 26.

*Enoploides longisetosus* sp. nov., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 338-339 fig. 10; Note Ist. Biol. mar. Rovigno **2** 25 1943 p. 5.—*E. labiatus* (Bütschli) (syn. *E. spiculohamatus* Schulz, 1932), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 21 pl. iv fig. 16 a-c.—*E. labiatus* (Bütschli), North Carolina, PEARSE ET AL Ecol. Monogr. Durham N.C. **12** 1942 p. 183.

*Enoplolaimus vulgaris* de Man, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 23 pl. iv fig. 18.—*E. strandi* Allg., Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1943 p. 278 fig. 5.

*Enoplus communis* Bastian p. 21 pl. iv fig. 19; *brevis* Bast. p. 21 pl. v fig. 20, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*E. meridionalis* Steiner, Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 234 fig. 2.—*E. littoralis* Filipj. pp. 335-336 fig. 7; *meridionalis* Steiner p. 337 fig. 8; *flagellicaudatus* sp. nov. pp. 337-338 fig. 9, Mediter-

ranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943.—*E. flagellicaudatus* sp. nov., Alexandria fisheries ground, STEKHOVEN Note Ist. Biol. mar. Rovigno **2** 25 1943 p. 4.

*Enterobius sciuri* sp. nov. in *Sciurus vulgaris*, Switzerland, KREIS Rev. suisse Zool. Genève **51** 1944 pp. 233–237 fig. 2 a–h.

*Euchromadora mediterranea* sp. nov., Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1942 pp. 51–52 fig. 12.—*E. striata* (Eberth) pp. 364–365 fig. 33; *inflatispiculum* Stekhoven pp. 365–366 fig. 34, Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943.

*Eudemoscolex chaetogaster* Greeff, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 68 pl. xiv fig. 78 a–c.

*Eulinhomoeus elongatus* (Bastian), pp. 57–58 pl. xiii fig. 69 a–e; *hirsutus* Bastian, pp. 58–59 pl. xii fig. 64 a–c, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.

*Eurystomatina filiforme* (de Man), p. 31 pl. vi fig. 29 a–c; *littorale* Allgén p. 32 pl. vii fig. 32 a–b, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*E. terricola* (de Man), Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 236 fig. 6.—*E. ornatum* (Eberth), Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1942 pp. 33–34 fig. 7.—*E. terricola* de Man, *filiforme* de Man, Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **13** 12 1942 p. 2.—*E. assimile* (de Man), Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 348–349 fig. 19.

*Eustoma rotundatum* (Rud.) in *Raja clavata*, North Sea, PUNT Mém. Mus. Hist. nat. Belg. **98** 1941 pp. 47–50 figs. 41–46.

*Eustrongylides gadopsis* J. & M., 1940 (syn. *E. galaxias* J. & M.), in South Australian freshwater and estuarine fishes, probably larval stage of *E. phalacrocoracis*, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. **68** 1944 p. 64.—*E. ignotus* Jägersk. larvae encysting naturally in mesentery, etc., of *Fundulus heteroclitus*, U.S.A., CULLINAN J. Parasit. Lancaster Pa. **31** 1945 p. 109.

*Filaria clelandi* Johnst., 1912, transferred to *Diplotriaeana*, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. **68** 1944 p. 64.—*F. calamiformis* Schn., 1866, transferred to *Spirofilaria*, BAYLIS Ann. Mag. nat. Hist. London (11) **11** 1944 p. 799.—*F. nodulosa* Rud., 1820, assigned to *Parhamatospiculum*, *physalurum* Brems., 1851, to *Politospiculum*, SKRJABIN C.R. Acad. Sci. Moscou N.S. **46** 1945 p. 383.

Filariidae Cobbold, key to genera from reptiles, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. **67** 1943 p. 184.—Filariidae Cobbold, revision of subfamilies, SKRJABIN & SHIKHOLOVA C.R. Acad. Sci. Moscou N.S. **49** 1945 pp. 690–692.

*Filaroides osleri* (Cobbold) in trachea of South African bred dogs, ORTLEPP J. S. Afr. vet. med. Assoc. **16** 1945 pp. 86–87.

*Foleyella leiperi* (Raill.) in mesentery and retroperitoneal tissue of *Rana sphenoccephala*, N. America, COWPER Ann. Trop. Med. Paras. L'pool **39** 1945 p. 119 5 figs.—*F. chamaeleonis* Kreis, 1938, in body-cavity of *Chamaeleon* sp., some redescription, p. 587; *F. pigmentata* sp. nov. in connective tissue of *Chamaeleon* sp., pp. 588–591 fig. a–c, Madagascar, KREIS Rev. suisse Zool. Genève **52** 1945.

*Gammanema ferox* Cobb, North Carolina, PEARSE ET AL Ecol. Monogr. Durham N.C. **12** 1942 p. 182.

*Gnathostoma minutum* sp. nov. larvae in connective tissue of *Bitis nasicornis* and unidentified snake, Belgian Congo, STEKHOVEN Bull. Mus. Hist. nat. Belg. **19** 19 1943 pp. 7–10 fig. 3.

*Goezia ascaroides* (Gze.) in *Trachinus vipera*, North Sea, PUNT Mém. Mus. Hist. nat. Belg. **98** 1941 pp. 50–51 fig. 47.

*Gryllocola* gen. nov., Thelastomatinae, type *gryllocola* sp. nov. in rectum of mole-cricket, *Gryllotalpa* sp., India, BASIR Rec. Ind. Mus. Calcutta **44** 1942 pp. 95–97 fig. 1.

*Gryllophila* gen. nov., Thelastomatinae, type *gryllophila* sp. nov. in rectum of mole-cricket, *Gryllotalpa* sp., India, BASIR Rec. Ind. Mus. Calcutta **44** 1942 pp. 97–99 fig. 2.

*Habronema* Diesing, table of measurements of spp. in Equidae, *microstoma* var. *congolense* var. nov. in *Equus*

*burchelli granti*, p. 15 fig. 1; *longistoma* sp. nov. in *Eq. b. g.*, p. 16 fig. 3, Belgian Congo, VAN DEN BERGHE Explor. Parc. Nation. Albert, Bruxelles, Mission Van den Berghé (1936) 2 1943 pl. ix.

*Haemonchus contortus* (Rud.), variations in vulvar flap, ROBERTS Proc. roy. Soc. Queensland 53 1942 pp. 97-100 fig. 7.—*H. contortus* (Rud.) in pronghorn, *Antilocapra americana*, S. Dakota, LUCKER & DIKMANS Proc. helminth. Soc. Wash. 12 1945 p. 4.

*Halalaimus isaitshikovi* (Filipjev), pp. 17-18 p. iii fig. 12 a-c; *gracilis* de Man, p. 19 pl. iii fig. 13 a-b; *similis* Allgén, p. 19 pl. iv fig. 14 a-b, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*H. longicauda* Allgén, Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 232.

*Halamonchus macramphidium* Chitwood, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 182.

*Halaphanolaimus minutus* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 253 fig. 23.

*Halenchus fucicola* (de Man), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 69 pl. xiv fig. 79 a-b.

*Halichoanolaimus robustus* Bastian, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 39 pl. viii fig. 37 a-d.—*H. filicauda* Filipjev, Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942 p. 41.—*H. robustus* (Bast.), Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1943 p. 285 fig. 9.

*Hedruris* Nitzsch, list of spp., *scabra* sp. nov. in stomach of *Leptodactylus ocellatus*, Uruguay, TEIXEIRA DE FREITAS & LENT Pap. Avulsos Dept. Zool. São Paulo 1 1941 pp. 121-141 11 figs.

*Helicotylenchus* gen. nov., Tylenchidae, *nannus* sp. nov. on roots of lima bean, *Phaseolus lunatus*, Maryland, STEINER Proc. helminth. Soc. Wash. 12 1945 p. 36 fig. 1 a-f.

*Heterakis gallinae* (Gmel.), *putaust-ralis* Lane, *beramporia* Lane, in fowls, some redescri., China, WU & KUNG Sinensia [Chungking] 15 1944 pp. 119-120.—*H. gallinae* (Gm.), ? pseudoparasite in *Ninox novaeseelandiae*, New Zealand, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. 68 1944 p. 61.

*Heterodera göttingiana* Liebscher distinct from *H. schachtii* Schmidt, GOFFART Zbl. Bakt. Jena Abt. II. 104 4-7 1941 pp. 81-86 4 figs.—*H. schachtii* Schm. on roots of *Rumex crispus*, *marioni* (Cornu) on roots of burdock, *Arctium minus*, Canada, BAKER Canad. Entom. 76 1944 p. 152.—*H. cruciferae* sp. nov., infesting cabbages, Gt. Britain, FRANKLIN J. Helminth. London 21 1945 p. 71 fig.

Heteroxyneiminae [*sic*] subfam. nov., Subuluridae, type *Heteroxyneima* Hall, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 5 1945 pp. 284 307.

*Hexametra* Trav., differential key to spp., pp. 238-240; *daehlhöelzlii* sp. nov. in *Vipera lebetina* pp. 240-244 fig. 3 a-h, Dählhölzli Animal Park, Bern, KREIS Rev. suisse Zool. Genève 51 1944.

*Hypodontolaimus inaequalis* (Bastian) p. 43 pl. ix fig. 44 a-b; *buetschlii* Filipjev pp. 43-44 pl. ix fig. 45 a-b, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*H. zosteræ* Allg., p. 47; *heymonsi* (Steiner), p. 48 fig. 10, Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942.—*H. monodon* sp. nov., Mediterranean, STEKHOVEN Zool. Meded. Leiden 23 1942 p. 224 fig. 6.—*H. ponticus* Filipjev, Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 252 fig. 20.

*Iheringascaris* Pereira considered a syn. of *Contracecum* (*Thynnascaris*), JOHNSTON & MAWSON Rep. B.A.N.Z. Antarct. Res. Exped. 1929-31 5B 2 1945 p. 133.

*Indiana* gen. nov., Oxyuridae, *gryllotalpæ* sp. nov. in gut of *Gryllotalpa* sp., India, CHAKRAVATZ Current sci. Bangalore 12 1943 pp. 257-258 1 fig.

*Iranella prismatalaima* Cobb, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 183.

*Jägerskjöldia* [sc. *Jägerskiöldia*] Filipjev, 1916, morphology and relationship, p. 11; *acuticaudata* (Jägersk.), Heligoland, p. 12 pl. 1 fig. 4 a-d, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.

*Krampia acropora* Ditlevs., Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 23-25 pl. v fig. 21 a-d.



*Laimella hexasetosa* Chitwood, *quadrissetosa* Chitwood, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 182.

*Leptodictyum riparium* f. *tenuis* Jur. in galls on mosses, *Rhacomitrium canescens* and *Hypnum cupressiforme* var. *lacunosum*, Holland, BARKMAN Levende Nat. Amsterdam 48 11 pp. 137-139 3 figs.

*Leptosomatum bacillatum* (Eberth), p. 7 fig. 1; *sabangense* (Steiner), p. 8, Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942.—*L. bacillatum* (Eberth), Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1943 p. 271 fig. 1.—*L. longisetosum* Bast., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943 pp. 331-332 fig. 3 a b; Note Ist. Biol. mar. Rovigno 2 25 1943 p. 4.

*Libyostrogylus* Lane, table of measurements of spp.; *alberti* sp. nov. in stomach of *Dendrohyrax arboreus adolfi-friederici*, Belgian Congo, VAN DEN BERGHE Explor. Parc. Nation. Albert, Bruxelles, Mission Van den Berghe (1936) 2 1943 p. 11-13 pl. ix.

*Linhomoeus macramphus* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 257 fig. 28.

*Litosomoides carinii* (Trav.) microfilariae developing, experimentally, in tropical rat mite, *Liponyssus bacoti*, WILLIAMS & BROWN Science Lancaster Pa. N.S. 102 2654 1945 p. 482.—*L. carinii* (Trav.), notes on anatomy of 4th stage larvae and adults, CROSS & SCOTT J. Parasit. Lancaster Pa. 31 Suppl. 1945 p. 16.

*Longibucca lasiura* McIntosh and Chitwood in stomach of unnamed bat, Brazil, LINS DE ALMEIDA Rev. chil. Hist. nat. 44 1940 pp. 268-272 4 figs.

*Longicyatholaimus longicaudatus* (de Man), Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943 pp. 358-359 fig. 27.

*Marshallagia marshalli* (Ransom) in pronghorn, *Antilocapra americana*, Montana, LUCKER & DIKMANS Proc. helminth. Soc. Wash. 12 1945 p. 3.

Maupasininae subfam. nov., Subuluridae, type *Maupasina* Seurat, 1913, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 5 1945 p. 284 306.

*Metachromadora cancellatus* (Cobb), *onyzoides* Chitwood, *campycoma* (Cobb), North Carolina, PEARSE ET AL. Ecol.

Monogr. Durham N.C. 12 1942 p. 182.

*Metacyatholaimus* gen. nov., Cyatholaimidae, type *hirschi* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 pp. 241-242 fig. 11.

*Metadasynemella* gen. nov., Desmodoridae, type *macrophalla* sp. nov., Mediterranean, DE CONINCK Bull. Mus. Hist. nat. Belg. 18 22 1942 pp. 6-10 figs. 1-7.

*Metadesmodora* gen. nov., Desmodoridae, type *amphidiscata* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 pp. 241 243 fig. 12.

*Metalinhomoeus filiformis* (de Man), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 60.—*M. effilatus* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 255 fig. 25.

*Metaphelenchus* gen. nov., Aphelenchinae, type *rhopalocercus* sp. nov. on diseased stem of *Carica chilensis*, Chile, STEINER Bol. San. Veg. Chile 3 1944 pp. 107-109 figs. 5, 6 c-d.

*Metoncholaimus pristiurus* Strassen, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 28 pl. v fig. 24 a-d.

*Microfilaria madoquae* sp. nov. in blood of antelope, *Madoque kirkii*, Italian E. Africa, CORRADETTI Riv. Parassitol. Roma 3 1939 pp. 335-338 fig.—*M. plectropteri* sp. nov. in *Plectropterus gambiensis*, p. 12 pl. ii fig. 1; *ephippiorhynchii* sp. nov. in *Ephippiorhynchus senegalensis*, p. 12 pl. ii fig. 2; *hoplopteri* sp. nov. in *Hoplopterus spinosus*, p. 13 pl. ii fig. 3, Belgian Congo, VAN DEN BERGHE Explor. Parc. Nation. Albert, Bruxelles, Mission L. van den Berghe (1936) 1 1942.

*Microlaimus obtusicauda* sp. nov., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943, pp. 363-364 fig. 32; Note Ist. Biol. mar. Rovigno 2 25 1943 p. 12.

*Microlaimoides* gen. nov., Microlaimidae, type *weberi* sp. nov., Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942 pp. 61-62 fig. 13.

*Mirandonema* gen. nov., Dioctophymidae, *intestinalis* sp. nov. in intestine of *Nasua rufa* (*socialis*), Brazil, KREIS Rev. suisse Zool. Genève 52 1945, pp. 551 556-562 fig. 2 a-f.

*Mirzaiella* gen. nov., Thelastomatinae, type asiatica sp. nov. in rectum of mole-cricket, *Gryllotalpa* sp., India, BASIR Rec. Ind. Mus. Calcutta 44 1942 pp. 100-102 fig. 4.

*Molinema* Freitas & Lent, systematic position in Filariidae, SKRJABIN & SHIKHOBOLOVA C.R. Acad. Sci. Moscou N.S. 47 p. 527.

*Monhystera parva* de Man, p. 61 pl. xii fig. 67 a-b; *disjuncta* Bastian, pp. 61-62 pl. xii fig. 68 a-c; *socialis* Bütschli, p. 62; *refringens* Bressl. & S. Stekh., pp. 62-63 pl. xiii fig. 70 a-c; *luisae* Bressl. & S. Stekh., pp. 63-64 pl. xiii fig. 71 a-b, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*M. paratenuispiculum* sp. nov., p. 73 fig. 15; *macquarieensis* Allg., p. 75, Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942.—*M. capitata*, *microcephala*, spp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 258 figs. 29 30.—*M. groenlandica* Ditlevsen, Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1943 pp. 305-306 fig. 20.

*Mononcholaimus elegans* Kreis, Mediterranean, STEKHOVEN Zool. Meded. Leiden 23 1942 pp. 219 221 fig. 2.

*Mononchus sigmaturoides* Schneider, pp. 11-13 fig. 1; *spicatus* sp. nov., pp. 13 15 fig. 2, Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. 19 65 1943.

*Monoposthia costata* (Bastian), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 41 pl. viii fig. 41.—*M. costata* (Bast.), Mediterranean, STEKHOVEN Zool. Meded. Leiden 23 1942 p. 247 fig. 15.—*M. hexalata* Chitwood, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 182.

*Murshidia hamata* Daubn. in *Hylochoerus meinertzhageni* and *Phacochoerus aethiopicus*, Belgian Congo, VAN DEN BERGHE Explor. Parc. Nation. Albert, Bruxelles, Mission L. Van den Berghe (1936) 2 1943 p. 8 pl. v. figs. 1-3.—*M. hadia* Khal. in elephant, Belgian Congo, STEKHOVEN Bull. Mus. Hist. nat. Belg. 19 19 1943 pp. 5-7 fig. 2.

*Nematodirus abnormis* May, *spatiger* (Raill.), in pronghorn, *Antilocapra americana*, Dakota, LUCKER & DIKMANS Proc. Helminth. Soc. Wash. 12 1945 pp. 3-4.

*Nematodum Fulicae atrae* Dies., 1861 transferred to *Spirofilaria*, BAYLIS Ann. Mag. nat. Hist. London (11) 11 1944 p. 796.

*Neoapectana glaseri* developing, experimentally, in larvae of *Ozycaenus*, *Odontria*, *Pyronota* spp., New Zealand, DUMBLETON N.Z. J. Sci. Tech. 27A 1945 p. 80.

*Neochromadora poecilosoma* (de Man), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 44 pl. ix fig. 47 a-b.

*Neometastrongylus* gen. nov., *Metastrongylinae*, type *buechii* sp. nov. in lungs of *Capra hircus*, Switzerland, KREIS Rev. suisse Zool. Genève 51 1944 pp. 244-251 figs. 4-6.

*Numidica* Barreto, revision, *petrodromi* Baylis, 1934, type of *Baylis-numidica* gen. nov., LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 5 1945 pp. 279 303-304.

Numidinae [sic] subfam. nov., Subuluridae, key to genera, LÓPEZ-NEYRA Rev. Ibérica Parasit. Granada 5 1945 pp. 284 303.

*Odontonema tenuis* (Schneider), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 45-46.

*Odontophora setosa* Allgén, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 52-53 pl. xi fig. 57 a-f.—*O. paratenuicaudata* sp. nov., Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942 pp. 65-66 fig. 14.—*O. angustilaima* Filipjev, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 182.

*Oesophagostomum* Molin, table of measurements of spp., (*O. hylochaeri* sp. nov. in colon of *Hylochoerus meinertzhageni*, Belgian Congo, VAN DEN BERGHE Explor. Parc. Nation. Albert, Bruxelles, Mission Van den Berghe (1936) 2 1943 p. 9 4 figs.

*Onchium ocellatum* Cobb, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 54 pl. xi fig. a-c.

*Onchocerca gibsoni* (Clel. & Johnst.) in nodules in region of umbilical scar of *Syncerus caffer*, Belgian Congo, RODHAIN & GILLAIN Ann. Soc. Belge

Méd. Trop. Bruxelles **24** 1944 pp. 43–53 6 figs.—*O. armillata* R. & H., 1909, validity, variations in caudal papillae, CABALLERO Y C Proc. Helminth. Soc. Washington **12** 1945 p. 66 fig. 1aa–hb.—*O. cervicoides* Wehr & Dikm. transf. to *Wehrdikmansia*, CABALLERO Y C Rev. Brasil. Biol. Rio de Jan. **5** 1945 pp. 557–562 4 figs.—*O. volvulus* (Leuck.), morphology of microfilaria, GERMAN Amer. J. trop. Med. Baltimore **25** 1945 pp. 131–132 8 figs.

*Oncholaimellus mediterraneus* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 235 fig. 5.

*Oncholaimium appendiculatum* Cobb (?), North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. **12** 1942 p. 183.

*Oncholaimoides striatum* Chitwood, *rugosum* Chitw., North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. **12** 1942 p. 183.

*Oncholaimus brachycercus* de Man, p. 29 pl. vi fig. 27; *skawensis* Ditlevs., p. 30 pl. vi fig. 28 a–c, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.—*O. paroxyuris* sp. nov., Mediterranean, STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 219 fig. 1.—*O. skawensis* Ditlevs., Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **18** 12 1942 p. 2.—*O. dujardini* de Man, Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 234 fig. 3.—*O. dujardini* de Man, pp. 341–342 fig. 13; *brevicaudatus* Filipj., p. 342 fig. 14, Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943.

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bende Nematoda aus der Nordsee Brussels 1940 p. 22 pl. iv fig. 17 a–c.

*Oxystomatina elongata* (Bütschli), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 17 pl. iii fig. 11 a–e.—*O. elongatum* (Bütschli), Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **18** 12 1942 p. 2.

*Oxyspirura* (*Yorkeispirura*) *octopapillata* sp. nov. in nictitating membrane of *Polyborus cheriway*, Mexico, p. 528–531 figs. 1–3; *navali* Cab. assigned to subgenus (*Cramispirura*), p. 527; *crassa* Cab. to (*Oxyspirura*), p. 528, CABALLERO Y C. An. Inst. Biol. Mexico **13** 1942.

*Oxyuris aegocerotos* sp. nov. in *Capra ibex*, Zool. Garten, Basel, KREIS Rev. suisse Zool. Genève **51** 1944 pp. 228–233 fig. 1 a–g.

*Panagrolaimus rigidus* Schn., Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. **19** 65 1943 pp. 19–20 fig. 6.

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*Paracyatholaimus choanolaimoides* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 pp. 239–240 fig. 10.

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*Paralinhomoeus tenuicaudatus* (Bütschli), Heligoland, BRESSLAU &



STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 59 pl. xii fig. 65 a-b.—*P. lepturus* de Man, *longicaudatus* Allg., Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1942 pp. 77-78.—*P. amphiliabius* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden **23** 1942 p. 257 fig. 27.

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*Paranisakiopsis australiensis* sp. nov. in *Coelorrhynchus australis*, Tasmania, p. 106 figs. 6-8; *lintoni* nom. nov. pro *Ascaris linstowi* Linton nec Stoss. from *Nematonurus goodei*, p. 107, JOHNSTON & MAWSON Rep. B.A.N.Z. Antarct. Res. Exped. 1929-31 **5B** 2 1945.

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*Paraphelenchus micoletzkyi* Steiner transferred to *Metaphelenchus* n.g., STEINER Bol. San. Veg. Chile **3** 1944 p. 107.

*Pararhabdonema* gen. nov., Trichostrongylinae, *longistriata* sp. nov. in stomach of *Lichanotus laniger*, Madagascar, KREIS Rev. suisse Zool. Genève **52** 1945 pp. 552-556 fig. 1 a-d.

*Pareuchromadora setifer* sp. nov., Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943 pp. 366-367 fig. 35; Note Ist. Biol. mar. Rovigno **2** 25 1943 pp. 12-13.

*Paroncholaimus ditlevseni* Sch. Stekh., Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 26-27 pl. v fig. 23 a-f.

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*Pelecitus falconis* (Rud.), syn. *P. serpentulus* (Dies.), morphological notes, BAYLIS Ann. Mag. nat. Hist. London (11) **11** 1944 p. 800.—*P. armenica* sp. nov. in knee-joint of *Circus aeruginosus*, U.S.S.R., CHERTKOVA C.R. Acad. Sci. Moscow N.S. **49** 1945 pp. 305-307 2 figs.

*Penzancia paravelox* Allg., Norway, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1943 p. 304 fig. 19.

*Pereiraia* gen. nov., Spiruridae, type *Physocephalus lassancei* Trav., 1921, from *Mazama simplicicornis*, CUOCOLO Arq. Inst. Biol. São Paulo **14** 1943 pp. 213-216 7 figs.

*Periplaneticola periplaneticola* sp. nov. in rectum of mole-cricket, *Gryllotalpa* sp., India, BASIR Rec. Ind. Mus. Calcutta **44** 1942 pp. 102-104 fig. 5.

*Phanoderma* Bastian, differential key to Mediterranean spp. pp. 14-15; *parafilipjevi* Allgén, pp. 16-17 fig. 3; *albidum* Bast., pp. 17-18 fig. 4; *mediterranea* Micoletz., pp. 19-20 fig. 5, ALLGÉN Zool. Jahrb. Jena (Syst.) **76** 1942.—*P. albidum* Bastian, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 20 pl. iv fig. 15 a-c.—*P. albidum* Bast., pp. 333-334 fig. 4; *laticolle* (Mar.), p. 334 fig. 5; *gracile* (de Man), pp. 334-335 fig. 6, Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) **76** 1943.

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*Philometra congolense* Stekh. in stomach of *Bagrus* sp., Belgian Congo, STEKHOVEN Explor. Parc. Nation. Albert, Bruxelles, Mission H. Damas (1935-36) **9** 1944 pp. 10-13 8 figs.

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*Platycoma cephalata* Cobb, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 pp. 13-14 pl. ii fig. 6 a-f.

*Pneumostrongylus tenuis* sp. nov. in bronchiole of lung of deer, *Odocoileus v. virginianus*, N. America, pp. 200-204 figs. 1 2 3a; *alpenae* Dikmans, 1935, transferred to *Varestrongylus*, p. 204, DOUGHERTY Parasitology Cambridge 36 1945.

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*Pomponema mirabile* Cobb, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 182.

*Pontonema parpapillifera* (Micoletz.), Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942 p. 24 fig. 6.

*Porrocaecum piscium* (Rud.) (syn. *Asc. decipiens* Krabbe); *kogia* Johnst. & Mawson, *pristis* Baylis & Daubney, *galeocerdonis* Thwaites, *scoliodontis* Baylis, *cephaloscyllii* Yamaguti, *draschei* (Stoss.) and *rochalimai* Pereira, transferred to *Terranova* Leiper & Atkinson, p. 111, JOHNSTON & MAWSON Rep.

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*Prooncholaimus mediterraneus* sp. nov. Mediterranean, STEKHOVEN Note 1st. Biol. mar. Rovigno 2 25 1943 pp. 6-8.—*P. mediterraneus* Stekh., syn. *P. megastoma* of Micoletz., 1924, Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943 pp. 343-344 fig. 15.

*Protostrongylus* Kamensky, key to spp., pp. 63-65, *sylvilagii* sp. nov. in lungs of *Sylvilagus nuttalli grangeri* and *Lepus townsendii campanius*, Wyoming, SCOTT Univ. Wyoming Publ. 10 6 1943 pp. 57-71 18 figs.—*P.* sp. innom. in lungs of *Ovis dalli*, Alaska, GOBLE & MURIE J. Mammalogy 23 1942 pp. 220-221.—*P. indicus* sp. nov. in lungs of goats, India, SARWAR Proc. 31st Indian Sci. Congr. Delhi 1944 Pt. iii p. 89.—*P. gracilis* sp. nov. in lungs of sheep and goats, China, DIKMANS J. Wash. Acad. Sci. 35 1945 p. 294 fig. 1 a-h.—*P. kwongii* Wu & Liu redescribed from sheep and goats, DIKMANS Proc. Helminth. Soc. Wash.

ington 12 1945 pp. 69-71 fig. 1 a-e.—*P. capreoli* Stroh and Schmid, 1938, transferred to *Varestrongylus*, p. 204; *macrotis* Dikmans, type-host *Odocoileus h. hemionus*, p. 204 figs. 8-10, DOUGHERTY Parasitology Cambridge 36 1945.

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*cambari* Allen, 1933, in branchial cavity of *Cambarus (Cambarellus) montezumae*, Mexico, RIOJA Rev. chil. Hist. nat. 44 1940 p. 56.—*R. monhystera* Bütschli, Mediterranean, STEKHOVEN Zool. Jahrb. Jena (Syst.) 76 1943 p. 378 fig. 47.

*Rhabdochona coelorrhynchi* sp. nov., in *Coelorrhynchus australis*, Tasmania, JOHNSTON & MAWSON Rep. B.A.N.Z. Antarct. Res. Exped. 1929-31 5B 2 1945 p. 149 figs. 44-45

*Rhabdodemania minima* Chitwood, North Carolina, PEARSE ET AL. Ecol. Monogr. Durham N.C. 12 1942 p. 183.

*Rictularia* Frölich, revision of genus, pp. 6-9; table of spp., differentiating males only, pp. 10-11; *proni* Seurat, 1915, in *Apodemus sylvaticus* and *Sciurus vulgaris*, France, pp. 13-19 figs. 1-2; list of spp., with hosts and geogr. distribution, pp. 19-26; DOLLFUS & DESPORTES Ann. Parasitol. Paris 20 [1945].—*R. sp. innom.*, in stomach of *Peromyscus leucopus noveboracensis*, West Virginia, WILSON J. Mammalogy Baltimore 26 1945 p. 200.

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CLAPHAM J. Helminth. London 21 2-3 1945 pp. 95-99 figs. 6-11.

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*Seurattia marina* J. & M., 1941, lengths of spicules corrected, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. 68 1944 p. 62.

*Siphonolaimus cylindricaudatus* sp. nov., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 259 fig. 31.

*Sphaerocephalum bulbiferum* sp. nov., Alexandria fisheries ground, STEKHOVEN Note Ist. Biol. mar. Rovigno 2 25 1943 pp. 13-14; Zool. Jahrb. Jena (Syst.) 76 1943 p. 376 fig. 45.

*Sphaerolaimus balticus* Schn., *hirsutus* Bast., Belgium, STEKHOVEN Bull. Mus. Hist. nat. Belg. 18 12 1942 p. 3.—*S. gracilis* de Man, Mediterranean, STEKHOVEN Zool. Meded. Leiden 23 1942 p. 228 fig. 10.

*Spilophora kryptospiculum* sp. nov., Mediterranean, ALLGÉN Zool. Jahrb. Jena (Syst.) 76 1942 pp. 49-50 fig. 11.

*Spilophorella paradoxa* (de Man), Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940 p. 44 pl. ix fig. 46.—*S. euxina* Filipj., Balearic Is., STEKHOVEN Zool. Meded. Leiden 23 1942 p. 247 fig. 16.—*S. mediterranea* (Micoletz.), Mediterranean, STEKHOVEN Zool. Meded. Leiden 23 1942 p. 223 fig. 5.

*Spirina parasitifera* (Bastian) p. 42 pl. ix fig. 42 a-b; *laevis* (Bastian) pp. 42-43 pl. ix fig. 43 a-b, Heligoland, BRESSLAU & STEKHOVEN Marine freilebende Nematoda aus der Nordsee Brussels 1940.

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*Spironoura cryptobranchi* Walton in *Terrapene carolina triunguis*, Louisiana, BENNETT & SHARP Proc. Louisiana Acad. Sci 4 1938 p. 242.—*S. cryptobranchi* Walton in sm. int. of *Amphiuma*

*tridactylum*, Louisiana, BENNETT & HUMES Proc. Louisiana Acad. Sci. 4 1938 p. 244.—*S. simpsoni* nom. nov. pro *S. hylae* Johnst. & Simpson, 1943, nec Reibcr, Byrd & Parker, 1940, JOHNSTON & MAWSON Trans. roy. Soc. S. Aust. 68 1944 p. 64.

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437.—*S. ratti*, indirect mode of larval development, GRAHAM Rep. Proc. III Internat. Congr. Microbiol. N.Y. 1940 p. 454.—*S.* sp. parasitic female in sm. intestine of *Sigmodon hispidus*, U.S.A., BAYLIS Ann. Mag. Nat. Hist. (11) 12 p. 193.

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(Moore) pp. 149-150; *bassi* sp. nov., Florida, pp. 150-151 pl. x figs. 217-233; *simplex* sp. nov. Gulf of California, pp. 152-153 pl. x figs. 224-229; *bifilaris* (Ehl.) pp. 153-155 pl. ix figs. 196-206; *minima* sp. nov., California, p. 155-156 pl. xiv figs. 308-314; *bicirrata* (Treadw.) pp. 156-158 pl. ix figs. 207-212; *latreilli* Aud. & Edw. pp. 158-159 pl. ix figs. 213-216; *latreilli japonica* Marenz., California and Mexico, pp. 159-160; *index* (Moore) pp. 162-163 pl. xii figs. 254-256; *californiensis* sp. nov., southern California, pp. 163-165 pl. xii figs. 257-262; *cruzensis* sp. nov., California, pp. 165-166 pl. xii figs. 263-269; *pallida* sp. nov., California, pp. 166-167 pl. xii figs. 270-274 pl. xiii figs. 275-277; *januarii* (Grube), West Indies, pp. 167-169 pl. xiii figs. 278-284, HARTMAN Allan Hancock Pacific Expeds. 1932-41 Los Angeles **10** 1944.—*L. tenuis* Verrill, North Carolina, Ecol. Monogr. Durham N.C. **12** 1942 p. 183.—*L. erecta* Moore, *bifilaris* Ehlers, *impatiens* Clap., Pacific coast of Mexico, RIOJA An. Inst. Biol. Mexico **12** 1941 p. 716.—*L. cruzensis* Hartm., morphological note, p. 332, *L. luti* sp. nov. p. 332 fig. 6, west coast of Canada, BERKELEY & BERKELEY Ann. Mag. nat. Hist. London (11) **12** 1945.

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*Opisthopista sibogae* Caull., East Indies, CAULLERY Siboga-Exped. Leiden **24**<sup>2</sup>**bis** 1944 pp. 160–161 fig. 126.

*Oridia armandi* (Clap.), Pacific coast of Mexico, RIOJA An. Inst. Biol. Mexico **12** 1941 p. 732 pl. ix figs. 9–10.

*Owenia fusiformis* delle Ch., East Indies CAULLERY Siboga-Exped. Leiden **24**<sup>2</sup>**bis** 1944 pp. 48–52 fig. 41.

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*Paramage* gen. nov., Ampharetidae, type *madurensis* sp. nov., East Indies, CAULLERY Siboga-Exped. Leiden 24<sup>2</sup> bis 1944 pp. 94-96 fig. 76.

*Paramphicteis* gen. nov., Ampharetidae, type *Sabellides angustifolia* Grube, 1878, nec Marenzeller, 1885, East Indies, CAULLERY Siboga-Exped. Leiden 24<sup>2</sup> bis 1944 pp. 83-85 fig. 67.

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60, East Indies, CAULLERY Siboga-Exped. Leiden 24<sup>2</sup> bis 1944.—*P. californiensis* Hartm., California, HARTMAN Allan Hancock Pacific Expeds. Los Angeles 10 1944 pp. 268-269 pl. xxi figs. 25-27.

*Perinereis falklandica* Ramsay, Magellan Str., FAUVEL Bull. Mus. Hist. nat. Paris (2) 13 1941 pp. 280-281.—*P. monterea* (Chamberlin) pp. 705-706; *obfuscata* Grube pp. 706-707 pl. ix figs. 1-7, Pacific coast of Mexico, RIOJA An. Inst. Biol. Mexico 12 1941.—*P. cultrifera* (Gr.), morphology of bristles, BOBIN Bull. Soc. Zool. France 67 1942 pp. 61-63 fig. 1 a-c.—*P. maindroni* sp. nov., Pondicherry, India, FAUVEL Bull. Mus. Hist. nat. Paris (2) 15 1943 pp. 201-202 fig. 1 e-i.

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*Petta tenuis* sp. nov., East Indies, CAULLERY Siboga-Exped. Leiden 24<sup>2</sup> bis 1944 p. 75 fig. 61.

*Phalacrophorus niger* p. 33 fig. 15; *maculatus* p. 34 figs. 11-13, Pacific and Atlantic oceans; *attenuatus* p. 34 fig. 14, Pacific Ocean, **spp. nov.**, TREADWELL Scient. Res. Cruise VII Carnegie 1928-9 Biol. 4 1943 pl. i.

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*Phyllochaetopterus socialis* Clap., Pacific coast of Mexico, RIOJA An. Inst. Biol. Mexico 12 1941 p. 728.—*P. sibogae* sp. nov. pp. 22-23 fig. 14, spp. innom. pp. 23-24 figs. 15-17, East Indies, CAULLERY Siboga-Exped. Leiden 24<sup>2</sup> bis 1944.

*Phyllodoce* (*Anaitides*) *mucosa* (Örst.) p. 682; (*A.*) *medipapillata* Moore pp. 682-684 pl. i fig. 1 pl. ii figs. 21-22; (*A.*) *multiseriata* sp. nov. pp. 684-687 pl. i figs. 2-6, Pacific coast of Mexico, RIOJA An. Inst. Biol. Mexico 12 1941.—*P. digueti* sp. nov., Gulf of California, FAUVEL Mém. Mus. Paris (N.S.) 18 1943 pp. 10-13 fig. 1.—*P. fragilis* Webst., 1879, transferred to *Nereis*.

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†*Ligonodina tenera* **sp. nov.**, Lower Mississippian black shale, Montana, COOPER, in COOPER & SLOSS, J. Paleont. Menasha **17** 1943 p. 174 pl. xxix fig. 29.

†*Lonchodina discreta* Ulr. & Bassl., Lower Mississippian black shale, Alberta, COOPER & SLOSS J. Paleont. Menasha **17** 1943 p. 174 pl. xxix fig. 2.

†*Microcoelodus typus* B. & M. p. 383 figs. 36 54-56; *asymmetricus* B. & M. pp. 383-384 figs. 37 39 41 46; *intermedius* **sp. nov.**, p. 384 figs. 38 40 53; *inornatus* **sp. nov.**, p. 384 fig. 45; *minutidentatus* B. & M. p. 384 fig. 50; *typus* B. & M. p. 385 fig. 12, Ordovician, Oklahoma, BRANSON & MEHL J. Paleont. Menasha **17** 1943 pl. lxiv.

†*Oistodius larapintinensis* **sp. nov.**, Ordovician, Central Australia, CRESPIN Trans. roy. Soc. S. Aust. **67** 1943 pp. 231-232 pl. xxxi figs. 1-13.—*O. suberectus* B. & M. p. 385 fig. 16; *inclinatus* B. & M. p. 386 fig. 1; *abundans* B. & M. p. 386 fig. 11, Ordovician, Missouri, BRANSON & MEHL J. Paleont. Menasha **17** 1943 pl. lxiv.

†*Paltodus madigani* **sp. nov.**, Ordovician rock, Central Australia, CRESPIN Trans. roy. Soc. S. Aust. **67** 1943 p. 232 pl. xxxi figs. 14-16.—*P. compressus* B. & M. fig. 6; *gracilis* B. & M. figs. 7 8 Ordovician, Oklahoma, BRANSON & MEHL J. Paleont. Menasha **17** 1943 p. 386 pl. lxiv.

†*Phragmodus undatus* B. & M. p. 386 figs 4 5; ? *primus* B. & M. p. 381 fig. 8, Ordovician, Oklahoma, BRANSON & MEHL J. Paleont. Menasha **17** 1943 pl. lxiii.

†*Polycarolodus tridentatus* B. & M. pp. 382 385 figs. 14 27 28; *bidentatus* B. & M. pp. 382-383 385 figs. 15 29,



Ordovician, Oklahoma, BRANSON & MEHL. J. Paleont. Menasha 17 1943 pl. lxiv.

†*Prioniodina congruens* sp. nov., Lower Mississippian black shale, Montana, COOPER, in COOPER & SLOSS, J. Paleont. Menasha 17 1943 p. 174 pl. xxix fig. 14.

†*Pteroonus?* *abbreviatus* sp. nov., Ordovician, Oklahoma, BRANSON & MEHL J. Paleont. Menasha 17 1943 p. 387 pl. lxiv figs. 2 3.

†*Siphonognathus sexplicata* Brans. & Mehl., Lower Mississippian black shale, Montana, COOPER & SLOSS J. Paleont. Menasha 17 1943 p. 174 pl. xxix fig. 30.

†*Spathognathus acidentatus* (Brans.), p. 174 fig. 2; *altus* (Brans. & Mehl), p. 174 fig. 8; *angustus* sp. nov., p. 174 fig. 20; *crassidentatus* (Brans. & Mehl) p. 175 fig. 1; *cyrius* (Cooper), p. 175 fig. 6; *exochus* (Coop.), p. 175 fig. 16; *inornatus* (Brans. & Mehl), p. 175 fig. 9; *macroodus* (Coop.), p. 175 fig. 7 pl. xxix fig. 17; *mediocris* (B. & M.), p. 175 fig. 5; *praelongus* sp. nov., p. 175 fig. 14; *strigilis* (Huddle), p. 175 figs. 3 4 10 12, Lower Mississippian black shale, Alberta and Montana. COOPER, in COOPER & SLOSS, J. Paleont. Menasha 17 1943 pl. xxviii.

†*Subbryantodus grandis* sp. nov., Lower Mississippian black shale, Alberta. COOPER, in COOPER & SLOSS, J. Paleont. Menasha 17 1943 p. 175 pl. xxix fig. 19.

†*Trucherognathus irregularis* B. & M., pp. 384-385 figs. 31 32; *distorta* B. & M., p. 385 figs. 30 33, Ordovician, Oklahoma, BRANSON & MEHL J. Paleont. Menasha 17 1943 pl. lxiv.

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†*Arabellites rectidens?* Eller p. 140 4 figs.; (?) *claytonae*, p. 140 2 figs., ? *doutti* p. 141 2 figs., spp. nov., Ordovician, Ontario and New York, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945.

†*Diopatraites tricuspis* sp. nov., Ordovician, Quebec, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945 p. 197 pl. vii figs. 32 33.

†*Eunicites tolmachoffi*, p. 177 7 figs.; *geisacanthus*, p. 178 3 figs.; *whitae*, p. 178 2 figs.; *compressus*, p. 179 2 figs.; *barbaricus*, p. 179 2 figs.; *toddi*, p. 180 1 fig.; *sweedneri*, p. 180 2 figs.; *kirkfieldensis*, p. 181 1 fig.; *twomeyi*, p. 181 1 fig.; *acus*, p. 182 fig.; *colossus*,

p. 182 1 fig.; *acis*, p. 183 1 fig.; *aculeus*, p. 183 2 figs.; *conjectus* p. 183 1 fig.; *planoconvexus*, p. 184 2 figs.; *plackae*, p. 184 1 fig.; *cavus* p. 185 2 figs.; *ansatus*, p. 185 2 figs., spp. nov., Ordovician, Ontario, Quebec and New York, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945.—*E. (?) index* sp. nov., Silurian Manitoulin Dolomite, Ontario, ELLER Amer. Midl. Nat. Notre Dame 32 1944 p. 752 pl. iv figs. 7-10.

†*Ilidraites camurus*, p. 142 8 figs.; *fuehreri*, p. 142 3 figs.; *rarus*, p. 143 3 figs., spp. nov., Ordovician, Ontario, Quebec and New York, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945.

†*Leodicites caleyi* sp. nov., Silurian Manitoulin Dolomite, Ontario, ELLER Amer. Midl. Nat. Notre Dame 32 1944 p. 751 pl. iv figs. 17 21.—*L. brooksi*, p. 144 5 figs.; *biformis*, p. 144 4 figs.; *artus*, p. 145 2 figs.; *semiquadratus* p. 146 2 figs.; *antefixus*, p. 146 2 figs.; ? *continuus*, p. 147 2 figs.; *collatatus* p. 147 2 figs.; *exilis*, p. 148 2 figs.; *arquatus*, p. 148 2 figs.; *agostini*, p. 149 2 figs.; *anticus*, p. 149 2 figs.; *absolutus*, p. 150 3 figs.; *angustisulcus*, p. 151 3 figs.; *breviculus*, p. 151 5 figs.; *clementi*, p. 152 2 figs.; *buris*, p. 152 3 figs.; *bisulcus*, p. 153 1 fig.; *angulus*, p. 154 1 fig.; *convallis*, p. 154 3 figs.; *corbis*, p. 155 2 figs., spp. nov., Ordovician, Ontario, Quebec and New York, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945.

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†*Marphysaites* **gen. nov.**, type *aptus* **sp. nov.**, Ordovician, Ontario, ELLER Ann. Carnegie Mus. Pittsburgh 30 1945 pp. 194–195 pl. vii fig. 26.

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# 7. BRACHIOPODA

BY

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†*Dicellomus minutus* sp. n. Cambrian U.S.A. (N.J.) HOWELL Mem. geol. Soc. Amer. Washington 12 1945 pp. 4-5 pl. i fig. 6.

†*Lingulella augusta* p. 10 pl. ii fig. 9, *halei* pp. 9-10 pl. ii fig. 8, *jerseyensis* p. 9 pl. ii figs. 11-13 spp. n. Cambrian U.S.A. (N.J.), *welleri* p. 8 pl. ii figs. 2-7, HOWELL Mem. geol. Soc. Amer. Washington 12 1945.—*L. aff. desiderata*, MELÉNDEZ 74 p. 131 figs. 2-3.—*L. cf. ferruginea* p. 51 pl. iv fig. 88, sp. A p. 52 pl. iv figs. 89-90, RICHTER & RICHTER 82.

†*Lingulella (Lingulepis) westergårdi* sp. n. Cambrian Sweden, KAUTSKY Geol. Fören. Stockh. Förh. 67 1945 pp. 142-144 pl. ix figs. 6-9, pl. x fig. 1, pl. xvii fig. 9.—*Lingulepis acuminata*, HOWELL 49 p. 24 pl. vii fig. 1.

†*Obolus radifer* sp. n. Cambrian Palestine, RICHTER & RICHTER Abh. senckenb. naturf. Ges. 460 1941 pp. 22-23 pl. i figs. 2-6.

†*Obolus (Westonia) lapponicus* sp. n. Cambrian Sweden, KAUTSKY Geol. Fören. Stockh. Förh. 67 1945 pp. 140-142 pl. ix figs. 10-11, pl. x figs. 2-3.—*W. ollia* p. 10 pl. ii figs. 14-19, *stoneana* p. 25 pl. ii figs. 20-21, pl. vii fig. 2, HOWELL 49.

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†*Pseudolingula* p. 58, *aquilina* pp. 60-61 pl. i fig. 12, *pyxidata* pp. 59-60 pl. i fig. 10 spp. n. Ordovician Canada, ? *eva* p. 60 pl. i figs. 16-17, *iowensis* p. 61 pl. i figs. 6, 8-9, ? *major* p. 62 pl. i figs. 13-14, SINCLAIR Trans. roy. Soc. Can. 39 (4) 1945.

†*Trigonoglossa* p. 57, *rosamontana* sp. n. p. 58 pl. i figs. 3-4, 7 Ordovician Canada, SINCLAIR Trans. roy. Soc. Can. 39 (4) 1945.

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†*Lingulops* p. 55, *nitida* sp. n. p. 56 pl. iii figs. 18–19, 21 Ordovician Canada, SINCLAIR Trans. roy. Soc. Can. **39** (4) 1945.

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†*Botsfordia thorslundi* sp. n. Cambrian Sweden, KAUTSKY Geol. Fören. Stockh. Förh. **67** 1945 pp. 144–147 pl. ix figs. 1–5, pl. x figs. 4–9.

†*Obolella* ? sp., TROEDSSON **106** p. 15 pl. i fig. 1.

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†*Trematobolus palaestinensis* sp. n. Cambrian Palestine, RICHTER & RICHTER Abh. senckenb. naturf. Ges. **460** 1941 pp. 23–24 pl. i fig. 1.

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†*Linnarssonella peapackensis* sp. n. Cambrian U.S.A. (N.J.) HOWELL Mem. geol. Soc. Amer. Washington **12** 1945 p. 4 pl. i fig. 5.

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†*Discinisca* sp., WOODRING, STEWART & RICHARDS **118** pl. xxxix figs. 1, 6.

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†*Crania* with *Acanthocrania* subgen. n. p. 71 for type *Crania spiculata* Rowley 1908, p. 71 pl. vi figs. 46–47, 54 Carboniferous U.S.A. (Missouri), WILLIAMS Prof. Pap. U.S. geol. Surv. **203** 1943.

†*Crania* with *Lissocrania* subgen. n. p. 71 for type *Crania dodgei* Rowley 1908, p. 71 pl. vi fig. 45, Carboniferous U.S.A. (Missouri), WILLIAMS Prof. Pap. U.S. geol. Surv. **203** 1943.

†*Lissocrania* subgen. n. see *Crania*.

†*Petrocrania famelica*, STAINBROOK **99** p. 12 pl. i figs. 42–43.

†*Philhedra sheldoni*, STAINBROOK **99** p. 13 pl. i fig. 44.

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†*Eoorthis* ?, TROEDSSON **106** p. 14 pl. i figs. 3–4.—*E.* sp. A, RICHTER & RICHTER **82** p. 51 pl. iv fig. 84.

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†*Finkelburgia newtonensis*, HOWELL **49** p. 11 pl. iii figs. 1–4.

†*Orusia jerseyensis* sp. n. Cambrian U.S.A. (N.J.), HOWELL Mem. geol. Soc. Amer. Washington **12** 1945 p. 12 pl. iii figs. 5–8.

### SKENIDIIDAE

†*Skenidium independense* sp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington **14** 1945 p. 14 pl. i figs. 14–18.

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†*Orthis opercularis*, COTTREAU **29** p. 195.—*O. circularis taunica*, KUTSCHER **61** pl. i fig. 1.—*O. actoniae*, MELÉNDEZ **74** pl. xxvi figs. 3–5.—*O. calligramna* var. *alata*, MELÉNDEZ **74** pl. xxvi fig. 8.

†*Orthis (Glyptorthis) biornata* sp. n. Ordovician Scotland, REED Ann. Mag. Nat. Hist. (11) **12** 1945 pp. 309–310.

### DINORTHIDAE

†*Dinorthis*, BANCROFT **40** p. 240.

†*Dinorthis (Plaesiomys) robusta* pp. 240–244 pl. xxxv figs. 1–3, pl. xxxvi figs. 4–5, *multiplicata* pp. 244–245 pl. xxxv figs. 4–6, pl. xxxvi figs. 1–3 spp. n. Ordovician England, BANCROFT J. Paleont. Menasha, Wis. **19** 1945.



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†*Clitambonites* aff. *emarginatus*,  
MELÉNDEZ 74 pl. xxvi fig. 8.

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†*Aulacella* p. 14, *infera* p. 15 pl. i  
figs. 19–28, STAINBROOK 99.

†*Cariniferella iowensis* sp. n. Devonian  
U.S.A. (Iowa), STAINBROOK Mem. geol.  
Soc. Amer. Washington 14 1945 pp. 16–  
17 pl. i figs. 29–37.

†*Cryptothyris* gen. n. for type *Resser-*  
*ella paracyclica* Bancroft 1928 Ordovi-  
cian England, BANCROFT J. Paleont.  
Menasha, Wis. 19 1945 p. 223.

†*Dalmanella verneuili*, ASSELBERGHS  
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*orbicularis* p. 127 figs. 14–16, DAHMER  
34.—*D. testudinaria* var. *curvicostata*,  
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†*Onniella* p. 211, *aspasia* pp. 217–218  
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*depressa* pp. 218–221 pl. xxx figs. 10–13,  
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†*Raymondella* gen. n. p. 197 for type  
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†*Soudleyella* gen. n. p. 209 for type  
*S. soudleyensis* sp. n. pp. 210–211 pl.  
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†*Dalmanella* (*Fascicostella* ?) *clariondi*  
sp. n. Devonian Morocco, LE MAITRE  
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geol. Maroc 61 1944 pp. 25–27 pl. vi  
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†*Horderleyella* p. 235, *corrugata* sp. n.  
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†*Howellites* subgen. n. see *Resserella*.

†*Resserella*, BANCROFT 20 p. 203.

†*Resserella* with subgen. *Howellites*  
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†*Wattsella* p. 189, *horderleyensis* pp.  
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## RHIPIDOMELLIDAE

†*Rhipidomella hamoni*, LE MAITRE 64  
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WILLIAMS 113 p. 72 pl. vi figs. 55–66.

## HETERORTHIDAE

Harknessellinae, subfam. emended,  
BANCROFT 20 p. 223.

†*Harknessella* p. 225, *subplicata* p.  
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*tilio* p. 231, BANCROFT 20.

†*Heterorthis retrorsistria*, BANCROFT  
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†*Reuschella*, BANCROFT 20 p. 238.

†*Smeathenella* p. 231, *strophomenoides*  
sp. n. Ordovician England pp. 232–235  
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## SCHIZOPHORIIDAE

†*Orthis* (*Isorthis*) *trigeri*, LE MAITRE 64 p. 27 pl. vii figs. 19–21.

†*Proschizophoria magnifica* sp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 355.

†*Schizophoria amandaensis* sp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945 pp. 17–18 pl. i figs. 1–13.—*Orthis* (*S.*) *striatula*, COTTREAU 29 p. 195.—*S. provulvaria*, SIMPSON 93 pl. v fig. 2e.

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†*Gypidula* p. 32, ? *africana* pp. 37–38 pl. ii figs. 9–12, pl. A fig. 8, *dichotoma* pp. 38–39 pl. A fig. 10, pl. iii figs. 1–13, pl. v fig. 23 spp. n. Devonian Morocco, cf. *galeata* p. 39 pl. A fig. 9 pl. v figs. 9–13, LE MAITRE Notes & Mém. Service Mines Carte geol. Maroc 61 1944.—*G. munda*, STAINBROOK 99 p. 41 pl. iv figs. 8–9.

†*Sieherella* p. 31, *costata* p. 32 pl. i figs. 1–8 with var. *lata* var. n. Devonian Morocco pp. 34–35 pl. i figs. 9–12, pl. ii figs. 1–8, iii figs. 14–16, *sieheri* p. 35 with var. *rectifrons* p. 36 pl. v figs. 14–18, LE MAITRE Notes & Mém. Service Mines Carte geol. Maroc 61 1944.

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†*Camerophoria pikensis* sp. n. Carboniferous U.S.A. (Missouri) WILLIAMS, Prof. Pap. U.S. geol. Surv. 203 1943 pp. 80–81 pl. viii figs. 26–28.—*C. purdoni*, TRECHMANN 105 p. 349 pl. xv figs. 10–12.

†*Camerophorina* gen. n. p. 43 for type *Terebratulina pachyderma* Quenstedt 1871 Devonian Germany, p. 43 pl. iii fig. 54, pl. iv figs. 85–87, pl. vii figs. 28–29, SCHMIDT Abh. senckenb. naturf. Ges. 459 1941.

## STROPHOMENACEA

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†*Actinomena brumalis*, REED 80 p. 310.

†*Bimuria perrugata* sp. n. Ordovician Scotland, REED Ann. Mag. nat. Hist. (11) 12 1945 pp. 313–314 pl. i figs. 1–3.

†*Douvillina* p. 20, *navicula* sp. n. p. 22 pl. iii figs. 26–31 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Douvillinaria* gen. n. p. 22 for type *Strophodonta variabilis* Calvin 1878, p. 24 pl. iii figs. 1–4, 25, *perversa* sp. n. pp. 25–26 pl. iii figs. 13–16 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Gamphalosia* gen. n. p. 33 for type *G. tenuissima* sp. n. pp. 33–34 pl. ii figs. 21–24 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Kayserella raricosta* sp. n. [nom. med.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 pp. 355–6.

†*Kjaerina* p. 245, *bipartita* p. 248 pl. xxxvii figs. 3–4, *geniculata* p. 249 pl. xxxvii figs. 5–7, *hedstroemi* p. 247 pl. xxxvi figs. 7–9, pl. xxxvii figs. 1–2, BANCROFT 20.

†*Kjerulfina* p. 250, *polycyma* p. 250 pl. xxxviii figs. 1–5, BANCROFT 20.

†*Leptaena naranjoana*, COTTREAU 29 p. 196 pl. vii figs. 7a–c.—*L. rhomboidalis*, LE MAITRE 64 p. 43.

†*Leptostrophia rotunda* sp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 353.—*Stropheodonta* (*L.*) *explanata* var. *taunica* var. n. Devonian Germany, DAHMER Senckenbergiana, Frankfurt 22 1940 pp. 150–151 figs. 18–19.

†*Microtrypa* gen. n. p. 144 for type *M. atilis* sp. n. pp. 144–145 pl. ii figs. 10–12, ? *modesta* p. 145 pl. ii figs. 16–18, ? *nasuta* p. 146 pl. ii figs. 13–14, ? *nitida* pp. 146–147 pl. ii figs. 22–23, ? *plana* p. 147 pl. ii figs. 5–6, ? *tersa* pp. 147–148 pl. ii figs. 19–20 Silurian Canada, WILSON Trans. roy. Soc. Can. 39 (4) 1945.

†*Nervostrophia* p. 30, *calvini* p. 32 pl. ii figs. 9–12, *multinervosa* pp. 32–33 pl. ii figs. 5–8, *thomasi* p. 31 pl. ii figs. 1–4 spp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Playfairia girvanensis* sp. n. Ordovician Scotland, REED Ann. Mag. nat. Hist. (11) 12 1945 pp. 311–312.

†*Plectambonites praeteritus* sp. n. Ordovician Scotland, REED Ann. Mag. nat. Hist. (11) 12 1945 pp. 312–313 pl. i fig. 4.

†*Pseudodouvillina* gen. n. p. 26 for type *P. euglyphea* sp. n. pp. 27–28 pl. iii figs. 17–20 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1935.

†*Ptychoglyptus pauciradiatus*, REED 70 p. 312.

†*Schellwievenella* cf. *praeumbracula*, LE MAITRE 64 p. 43 pl. vii figs. 1–3.—*S. consimilis*, MAILLIEUX 68 p. 3.

†*Schuchertella* p. 72, *louisianensis* sp. n. pp. 73–74 pl. vii figs. 67–81 Carboniferous U.S.A. (Missouri), lens p. 72 pl. vii figs. 1–7, WILLIAMS Prof. Pap. U.S. Geol. Surv. 203 1943.—*S. agassizi*, LAMBERT 64 pl. v fig. 3.—*S. p. 34, prava* p. 34 pl. ii figs. 19–20, STAINBROOK 99.—*S. chemungensis*, WOODRUFF 119 figs. 5A, I.

†*Stropheodonta ampla, bella* spp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 355.—*S. ornata*, DAHMER 34 figs. 20–21.—*S. explanata*, DAHMER 35 fig. 30.—*Leptaena* (*S.*?) *imbrex*, LE MAITRE 64 p. 41 pl. vi figs. 9–12.—*S. sp. aff. virgata*, SOLLE 97 p. 260 fig. 3.

†*Strophomena* p. 129, *extensa* nom. nov. p. 131 for *S. expansa* Wilson 1932 (preoccupied), *magna* p. 134 pl. i figs. 13–14, *minuta* pp. 135–136 pl. i figs. 1–3, *mollis* p. 136 pl. i fig. 4, *rotunda* p. 137 pl. i fig. 8, *venustula* pp. 138–139 pl. i figs. 6–7 spp. n., *filitexta* p. 131 pl. i fig. 15 with vars. *crenulata* pp. 132–133 pl. i figs. 16–18 and *obesa* p. 133 fig. 4 pl. i figs. 20–21 vars. n., ? *millionensis affinis* var. n. p. 135 pl. i fig. 5, *planumbona praecipita* var. n. pp. 136–137 pl. i figs. 9–10 Silurian Canada, *billingsi* p. 129, *delicatula* p. 130, cf. *dignata* p. 130, *irregularis* p. 134, *thalia* p. 137 pl. i figs. 11–12, sp. p. 139 pl. i fig. 19, WILSON Trans. roy. Soc. Can. 39 (4) 1945.

†*Strophonelloides* p. 18, *deeringi* sp. n. pp. 19–20 pl. ii figs. 25–33 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Sulcatostrophia* p. 28, *calvini* p. 29 pl. iii figs. 6–11, 23–24, STAINBROOK 99.

†*Trigrammaria* gen. n. p. 140 for type *T. trigonalis* sp. n. pp. 141–142 pl.

ii figs. 7–9 with vars. *parva* p. 142 pl. ii figs. 3–4, *prima* p. 143 pl. ii fig. 21 and *tumida* p. 143 pl. ii fig. 15 vars. n., *pulchra* sp. n. pp. 140–141 pl. ii figs. 1–2 Silurian Canada, WILSON Trans. roy. Soc. Can. 39 (4) 1945.

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†*Anoplia* genus discussed pp. 143–144, *australis, withersi* p. 144, GILL 43.

†*Eodevonaria dilatata*, LE MAITRE 65 p. 45 pl. vii fig. 59.

†*Chonetes granda* sp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 355.—*C. amplus* p. 481 pl. lxiii figs. 44–46, *mediolatus* p. 480 pl. lxiii figs. 32–34, *scitulites* p. 480 pl. lxiii figs. 35–38, *tumidellus* p. 479 pl. lxiii figs. 31, 39–43 spp. n. Devonian U.S.A., COOPER J. Paleont. Menasha, Wis. 19 1945.—*C. discussed* pp. 127–131, *australis* p. 136, *cresswelli* p. 134, *melbournensis* p. 132, *robusta* p. 134 pl. viii fig. 5, *bowieae* p. 136 pl. viii figs. 1–2, *gaskini* p. 142 pl. viii fig. 9, *killarensis* pp. 140–141 pl. viii fig. 14, *productoida* pp. 141–142 pl. viii figs. 7, 12, *psiloplia* pp. 138–9 pl. viii fig. 15, *ruddockensis* pp. 139–140 pl. viii fig. 10, *taggertyensis* pp. 137–138 pl. viii figs. 6, 8 spp. n. Devonian Australia (Victoria), GILL Proc. roy. Soc. Victoria 57 1945.—*C. brandonensis* sp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945 pp. 40–41 pl. iii figs. 38–40, 42.—*C. kirkbyi* p. 348 pl. xv figs. 6–9, *woolacotti* pp. 346–8 fig. 4 pl. xv figs. 1–5 spp. n. Permian England, *davidsoni* p. 349, TRECHMANN Quart. J. Geol. Soc. London 100 1945.—*C. striatellus omalianus*, ASSELBERGHS 15 p. 7.—*C. plebeia* p. 196 pl. vii figs. 8a–b, *tenuicosta* p. 197, COTTREAU 29.—*C. plebeja* fig. 16, *semiradiata* p. 152 fig. 17, DAHMER 31.—*C. striatella omaliana*, DAHMER 34 p. 129 figs. 39–40.—*C. unkelensis*, SIMPSON 93 pl. vi fig. 9.—*C. geniculatus* p. 74 pl. vii figs. 8–11, *ornatus* p. 75, pl. vii figs. 12–19 with var. *glenparkensis* p. 75 p. vii fig. 20, WILLIAMS 113.

#### PRODUCTACEA

Productacea superfam. n. of Strophomenoidea, MAILLIEUX Bull. Mus. Hist. nat. Belg. 17 30 1941 p. 7 (foot-note).

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†*Aulosteges acanthophorus* sp. n. Permian Queensland, FLETCHER Rec. Aust. Mus. Sydney 21 1945 pp. 314-315 pl. xxiii figs. 1-3.—*A. p. 32, baracoodensis* p. 6 fig. 1, *spinus* p. 36 pl. iv figs. 7-10, *wangenheimi* p. 33 figs. 4-5, PRENDERGAST 78.—*A. baracoodensis*, TEICHERT 103 pl. iii fig. 4.

†*Devonoproductus* p. 37, *vulgaris* sp. n. pp. 37-38 pl. iii figs. 44, 51-54 Devonian U.S.A. (Iowa), *walcotti* pl. iii fig. 43, STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Dictyoclostus* p. 12, *callytharrens* sp. n. pp. 13-16 fig. 2 pl. i figs. 1-7, pl. ii fig. 1 with var. *wadei* var. n. pp. 16-17 pl. ii figs. 2-4 Permian West Australia, *gratiosus* p. 17 pl. ii figs. 5-7, *spiralis* p. 18 pl. ii figs. 8-9, PRENDERGAST J. Roy. Soc. W. Aust. 28 1944.—*Productus* (*D.*) *djamantaicus* sp. n. [nom. nud.] Carboniferous Russia, GALITZKY C.R. Acad. Sci. Moscow N.S. 47 1945 p. 205.

†*Etheridgina* pp. 40, 52, *muirwoodae* sp. n. Permian Western Australia pp. 54-56 fig. 9 pl. vi figs. 14-15, PRENDERGAST J. Roy. Soc. W. Aust. 28 1944.

†*Heteralosia*, PRENDERGAST 78 p. 41.

†*Krotovia* p. 29, *micracantha, senticosa* p. 30, *spinulosa* p. 30 pl. iv figs. 11-13, PRENDERGAST 78.

†*Leptalosia* p. 39, *cordata* p. 40 pl. iii fig. 50, *inexpectans* pp. 39-40 pl. iii fig. 57 spp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.—*L. scintilla*, WILLIAMS 113 p. 78 pl. viii figs. 33-38.

†*Linoproductus* p. 20, *cancriniformis* p. 23 with var. *lyoni* var. n. pp. 24-25 pl. iii figs. 1-2 Permian West Australia, *cora* p. 20 with var. *foordi* p. 22 pl. iii figs. 3-5, PRENDERGAST J. Roy. Soc. W. Aust. 28 1944.

†*Productella proarctirostrata, suspecta* spp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 356.—*P. (?) semicircularis* sp. n. [nom. nud.] Carboniferous Russia, GALITZKY C.R. Acad. Sci. Moscow N.S. 47 1945 p. 205.—*P. p. 35, rugatula* p. 36 pl. iii figs. 48-49, *thomasi* pp. 36-37 pl. iii fig. 56 spp. n. Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.—*P. fragarina* p. 3, sp. cf. *forojuliensis* p. 4,

MAILLIEUX 68.—*P. pyxidata*, WILLIAMS 113 p. 76 pl. vii figs. 61-67.—*P. cf. lachrymosa* fig. 5G, sp. figs. 8C, 9G, M, WOODRUFF 119.

†*Productus craigmackensis*, STUBBLEFIELD 101 fig. 8d.—*P. rimberti*, STUBBLEFIELD 102 fig. 13d.—*P. horridus*, TRECHMANN 105 p. 349.

†*Productus (Eomarginifera) tissingtonensis* p. 257 pl. xi fig. 5d with forma *cambriensis* forma n. p. 257 pl. xi figs. 5a-c Carboniferous Wales, DUNHAM & STUBBLEFIELD Quart. J. geol. Soc. London 100 1945.

†*Strophalosia* p. 37, *etheridgei* pp. 43-45 fig. 7 pl. v figs. 5-12, *kimberleyensis* pp. 47-50 figs. 6d, 8 pl. vi figs. 1-5, *multispinifera* pp. 50-51 pl. vi figs. 6-8 spp. n. Permian Australia, cf. *beecheri* p. 41 pl. v figs. 1-3, *clarkei* p. 42 pl. v fig. 4, *gerardi* p. 45 pl. v figs. 13, 16-17, cf. *gerardi* p. 46 pl. v figs. 14-15, *jukesi* p. 47 fig. 6c pl. v figs. 18-20, *lamellosa* var. *humbletonensis* fig. 6b, *tenuispina* p. 52 pl. vi fig. 9, sp. A p. 51 pl. vi figs. 10-12, PRENDERGAST J. Roy. Soc. W. Aust. 28 1944.—*S. p. 38, independentis* sp. n. pp. 38-39 pl. iii figs. 45-47 Devonian U.S.A. (Iowa), STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.—*S. morrisiana*, TRECHMANN 105 p. 349 pl. xv fig. 13.—*S. beecheri*, WILLIAMS 113 p. 77 pl. vii figs. 68-71.

†*Strophalosiella*, PRENDERGAST 78 p. 40.

†*Strophalosiina*, PRENDERGAST 78 p. 35.

†*Taeniothaerus* p. 27, *subquadratus* p. 27 fig. 3 pl. iv figs. 1-6, PRENDERGAST 78.

†*Waagenoconcha* p. 25, *imperfecta* p. 25 pl. iii figs. 7-9, *vagans* p. 26 pl. iii fig. 6, PRENDERGAST 78.

†*Wyatkina*, PRENDERGAST 78 p. 35.

†*Wyndhamia*, PRENDERGAST 78 p. 40.

ORDER TELOTREMATA  
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†*Allorhynchus ? curriei* p. 81 pl. viii figs. 36-39, ? *louisianensis* p. 82 pl. vii figs. 47-50, WILLIAMS 113.



†*Calvinaria* gen. n. p. 43 for type *Rhynchonella ambigua* Calvin 1878, p. 44 fig. 2 (15) pl. iv figs. 3-6, STAINBROOK Mem. geol. Soc. Amer. Washington 14 1945.

†*Camarotoechia meganteris* sp. n. [nom. nud.] Devonian Russia, BUBLICHENKO C.R. Acad. Sci. Moscow N.S. 47 1945 p. 355.—*C. compacta* p. 482 pl. lxiii figs. 6-7, *missouriensis* p. 481 pl. lxiii figs. 8-12 spp. n. U.S.A. (Missouri), COOPER J. Paleont. Menasha, Wis. 19 1945.—*C. p. 7, osculum* sp. n. p. 13 pl. i fig. 11, pl. iv fig. 58, *hexatoma* p. 8 with subsp. *soetenica* pp. 10-11 pl. i figs. 4-5, pl. iv fig. 57, pl. v figs. 5-8 and *wetteldorfensis* pp. 9-10 pl. i fig. 2, pl. iv fig. 56, pl. v figs. 1-3, subsp. n. Devonian Germany, subsp. *hexatoma* p. 8 pl. i fig. 3 pl. v fig. 4, *daleidensis* p. 8 pl. i fig. 1, *elliptica* p. 11 pl. i figs. 6-7, pl. iv fig. 62, *triloba* p. 12 with subsp. *triloba* p. 12 and *fornicata* p. 12 pl. i figs. 8-10, pl. iv fig. 59, pl. v fig. 9, SCHMIDT Abh. senckenb. naturf. Ges. 459 1941.—*C. sinuosa*, ASSELBERGHS 15 p. 7.—*C. daleidensis*, DAHMER 35 fig. 29.—*C. nucula* fig. 7, *sinuosa* figs. 1-6, ? *utrini-quecostata* fig. 8, DAHMER 34.—*C. nympha*, LE MAITRE 64 p. 47 pl. v figs. 25-26.—*Rhynchonella* (*C. ?*) *mariana*, LE MAITRE 64 p. 46 pl. v figs. 1-8.—*C. fergusonensis*, MAILLIEUX 68 p. 5.—*C. daleidensis* p. 390, *hexatoma wetteldorfensis* p. 390 fig. 3, SCHMIDT 91.—*C. cf. cedarensis*, STAINBROOK 99 p. 42 pl. iv fig. 7.—*C. cf. tuta*, WILLIAMS 113 p. 82 pl. vii figs. 51-54.—*C. contracta* figs. 5D-E, 8G, 9A cf. *contracta* fig. 8E, cf. *duplicata* fig. 12A, WOODRUFF 119.

†*Glossinulus* subgen. n. see *Uncinulus*.

†*Hypothyridina parva* sp. n. Devonian U.S.A. (Missouri), COOPER J. Paleont. Menasha, Wis. 19 1945 pp. 482-3 pl. lxiii figs. 24-30.—*H. p. 26, procuboides* p. 26 pl. ii figs. 27-28, pl. vii fig. 19, SCHMIDT 89.—*H. emmonsii*, STAINBROOK 99 p. 42 pl. iv figs. 10-14.

†*Isopoma* p. 45, *brachyptyctum* p. 45 pl. iii fig. 53, pl. iv fig. 88, SCHMIDT 89.

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†*Paraphorhynchus striatocostatum*, WILLIAMS 113 p. 83 pl. viii fig. 32.

†*Pugnax* p. 28, *pugnoides* with subsp. *latus* subsp. n. pp. 29-30 pl. ii figs. 30A-B, pl. vii fig. 31, and *pugnoides* p. 29 pl. ii fig. 29, pl. iv fig. 72, pl. vii fig. 30, *pugnus* p. 30 with *praeivus* subsp. n. pp. 31-32 pl. ii figs. 34-36, *acuminatus praematurus* subsp. n. p. 32 pl. ii figs. 31-33 Devonian Germany, *anisodontus* p. 32, SCHMIDT Abh. senckenb. naturf. Ges. 459 1941.—*P. acuminatus* p. 281 with subsp. *dillanus* subsp. n. pp. 284-285 figs. 2-4, subsp. *acuminatus* p. 281 fig. 1, *praematurus* p. 286, *pugnus* p. 277 with subsp. *brecciae* pp. 278-279 figs. 6, 11, *torleyi* pp. 279-280 figs. 7, 12 subsp. n. Devonian Germany, subsp. *praeivus* p. 280 fig. 13 and *pugnus* p. 277 figs. 5, 10, *condylus* p. 286, SCHMIDT Senckenbergiana, Frankfurt 23 1941.—*P. condyli-formis* sp. n. Devonian Germany pp. 396-397 fig. 4, sp. p. 398 fig. 10, SCHMIDT Senckenbergiana, Frankfurt 25 1942.

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# 8. POLYZOA (BRYOZOA)

ARRANGED BY

ANNA B. HASTINGS, M.A., Ph.D.

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### III.—SYSTEMATIC INDEX

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†*Diastopora corrugata*, p. 179, *congesta*, p. 180, SAULEA-BOEC 75.

†*Diastoporidae*, GILLARD 44 p. 51.—key to Danish genera, MARCUS 59 p. 71.

†*Diastoporina flabellata*, SHIMER & SHROCK 79 p. 250.

*Diplosolen obelia*, MARCUS 59 p. 71.

†*Entalophora proboscidea*, SHIMER & SHROCK 79 p. 251.

*Entalophora clavata*, MARCUS 59 p. 76.

*Entalophoridae*, MARCUS 59 p. 75.

†*Fasciculipora plicata*, BARROSO 15 p. 292.

†*Favositella lacata*, SHIMER & SHROCK 79 p. 253.

*Filicrisia geniculata*, MARCUS 59 p. 39.

†*Filifascigera megaera*, SHIMER & SHROCK 79 p. 251.

†*Fistulipora tubulosa*, cf. *minor* var. *irregularis*, BOLKHOVITINOVA & ZOLKINA 18 pp. 182, 183.—*F. aliena* sp. n. Silurian France, PRANTL Sbor. Nár. Mus. Praz 2B 1940 p. 98.—*F. trifoliata* f. *moravica* form. n. Devonian Czechoslovakia, PRANTL Věst. Král. české Spol. nauk. Praha 1942 pp. 14, 26.—*F. neglecta*, *carbonaria*, SHIMER & SHROCK 79 p. 255.

†*Hederella*, compared with tabulate corals of family Auloporidae, ELIAS 35 p. 529.—*H. carbonaria* sp. n. Carboniferous, Oklahoma and Utah, U.S.A., CONDRA & ELIAS J. Paleont. Menasha Wis. 18 6 1944 p. 536.—*H. filiformis*, SHIMER & SHROCK 79 p. 251.

†*Hernodia humifusa*, SHIMER & SHROCK 79 p. 251.

†*Heteropora dichotoma*, BARROSO 15 p. 292.

*Hornera lichenoides*, violacea, MARCUS 59 pp. 78, 80.

*Horneridae*, MARCUS 59 p. 77.

†*Idmonea disticha*, carinata, unipora, BARROSO 15 p. 288, 289.

*Idmonea atlantica*, MARCUS 59 p. 69.

†*Leiosocia parvicella*, SHIMER & SHROCK 79 p. 251.

†*Lichenopora grignonensis*, SHIMER & SHROCK 79 p. 251.

*Lichenopora*, key to Danish species, p. 82, *L. hispida*, verrucaria pp. 83 84, MARCUS 59.

*Lichenoporidae*, MARCUS 59 p. 81.

†*Meekopora clausa*, SHIMER & SHROCK 79 p. 255.

†*Meliceritites angulosa*, BARROSO 15 p. 290.

†*Mitoclema mundulum*, SHIMER & SHROCK 79 p. 251.

†*Osculipora royana*, repens, truncata, BARROSO 15 pp. 289, 290.

†*Partretocycloecia dumosa*, SHIMER & SHROCK 79 p. 251.

†*Phacelopora pertenuis*, SHIMER & SHROCK 79 p. 253.

†*Proboscina angustata*, BARROSO, 15 p. 289.—*P. frondosa*, admota, clavatula, SHIMER & SHROCK 79 p. 250.

†*Reptaria stolonifera*, SHIMER & SHROCK 79 p. 251.

†*Spiropora verticillata*, BARROSO 15 p. 288.—*S. majuscula*, SHIMER & SHROCK 79 p. 251.

†*Stomatopora pratti*, SHIMER & SHROCK 79 p. 250.

*Stomatopora*, key to Danish species, p. 50, *S. major*, diastoporides, fasciculata pp. 50–55, MARCUS 59.—*S. granulosa*, DONS 30 p. 147.

†*Tretocycloecia tortilis*, SHIMER & SHROCK 79 p. 251.

†*Tubulipora cumulus*, SAULEA-BOCEC 75 p. 180.

*Tubulipora*, key to Danish species, p. 57; *T. dilatans*, lobulata, flabellaris, phalangea, liliacea, plumosa, aperta, penicillata, pp. 58–67, MARCUS 59.—*T. dilatans*, flabellaris, DONS 30 p. 146.

*Tubuliporidae*, key to Danish genera, MARCUS 59 p. 49.

#### TREPOSTOMATA

†*Amplexopora cingulata*, SHIMER & SHROCK 79 p. 258.

†*Anomolotoechus* gen. n. (*Atactotoechidae*), p. 187, *A. tuberatus*, typicus spp. n. pp. 188, 189, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan Ann Arbor. 5 10 1939.

†*Aspidopora elegantula*, SHIMER & SHROCK 79 p. 257.

†*Atactoporella* cf. *schucherti*, ROY 74 p. 81 fig.—*A. typicalis*, SHIMER & SHROCK 79 p. 257.

†*Atactotoechidae* fam. n. for *Atactotoechus* and *Anomolotoechus* gen. n. including *Monticuliporella* pars Bassler and *Orbignyella* pars Ulrich & Bassler, DUNCAN Contr. Mus. Geol. Michigan 5 10 1939 p. 186.

†*Atactotoechus* gen. n. (*Atactotoechidae*) p. 190, *A. bifolius*, casei, creber, limbatus, spissus typicus spp. n. pp. 191–196, winchelli, p. 197, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan Ann. Arbor. 5 10 1939.—*A. typicus*, winchelli, SHIMER & SHROCK 79 p. 258.

†*Batostoma gabiani* sp. n. Ordovician France, PRANTL Sbor. Nár. Mus. Praze 2B 1940 p. 91.—*B. fertile*, SHIMER & SHROCK 79 p. 259.

†*Batostomella* discussed, p. 150, *B. bundorensis* sp. n. Carboniferous Ireland, p. 176, LEE Mem. Geol. Surv. Gt. Britain 1 3 1912.—*B. (Eridotrypa) obliqua* referred to *Eridotrypella*, DUNCAN 33 p. 215.—*B. granulifera*, spinulosa, SHIMER & SHROCK 79 p. 258.

†*Batostomellidae*, SHULGA-NESTERENKO 80 p. 221.

†*Bythopora herricki*, SHIMER & SHROCK 79 p. 258.

†*Calacanthopora* gen. n. (*Batostomellidae*), p. 235; *C. prima* sp. n. p. 236, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10.

†*Chaetetes furcatus, fruticosus*, referred to *Atactotoechus*, DUNCAN 33 p. 190.

†*Chondraulus* gen. n. (Batostomellidae), p. 236. *C. densus, granosus, petoskeyensis* spp. n. pp. 237-239. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.

†*Constellaria varia, florida*, SHIMER & SHROCK 79 p. 259.

†*Cyclopora* ? *lunata*, sp. n. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939 p. 265.

†*Cyphotrypa* ? *maculosa, C. traversensis, C. ? unica* spp. n. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan U.S.A. 5 10 1939 pp. 200, 201.

†*Dekayella praenuntia, obscura, ulrichi*, SHIMER & SHROCK 79 p. 258.

†*Dekayia crenulata* sp. n. Ordovician France, PRANTL Sbor. Nár. Mus. Praz 2B 1940 p. 94.—*D. aspera*, SHIMER & SHROCK 79 p. 258.

†*Dianulites* sp., ROY 74 p. 82.

†*Discotrypa vera* sp. n. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 p. 264.

†*Dyodophragma* gen. n. (Batostomellidae), p. 240. *D. serratum, typicale* spp. n. pp. 240, 241. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.

†*Dyscritella*, discussed, p. 151. *D. miliaria*, p. 178. *D. nana*, sp. n. p. 179. *D. multifida* sp. n. p. 180. *D. ambigua* sp. n. p. 181. Carboniferous Gt. Britain, LEE Mem. Geol. Surv. Gt. Britain 1 3 1912.

†*Eostenopora* gen. n. (Batostomellidae), p. 242. *E. compressa, picta, primiformis, tenuimuralis* spp. n. pp. 243-246. *E. ? villosa*, sp. n. p. 247. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan, 5 10 1939.

†*Eridocampylus* gen. n. (Heterotrypidae), p. 202. *E. aculeatus, anceps, laxatus, mollis, multitabulatus, obliquus, summus, ulrichi* spp. n. pp. 203-209. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.

†*Eridotrypa bassleri* sp. n. Ordovician Baffin Land, p. 83, cf. *aedalis, minor*, p. 83. ROY Geol. Mem. Field Mus. Nat. Hist. Chicago 2 1941.

†*Eridotrypa mutabilis*, SHIMER & SHROCK 79 p. 258.

†*Eridotrypella* gen. n. (Heterotrypidae), p. 210. *E. brevis, devonica, granosa hybrida, minuta* spp. n. pp. 211-215. *E. obliqua* p. 215. *E. simplex, sinuosa, spinifera, valida, vilis* spp. n. pp. 216-220. Devonian Michigan, U.S.A., 5 10 1939.—*E. obliqua*, SHIMER & SHROCK 79 p. 258.

†*Hallopora formosa, meridiana* spp. n. Ordovician France, PRANTL Sbor. Nár. Mus. Praz 2B 1940 pp. 95, 97.—*H. multitabulata, dalei, rugosa, elegantula*, SHIMER & SHROCK 79 p. 261.

†*Hemiphragma tenuimurale, whitfieldi, imperfectum*, SHIMER & SHROCK 79 p. 259.

†Heterotrypidae, DUNCAN 33 p. 198.

†*Homotrypa subramosa, minnesotensis, flabellaris*, SHIMER & SHROCK 79 p. 257.

†*Homotrypella miqueli* sp. n. Ordovician France, PRANTL Sbor. Nár. Mus. Praz 2B 1940 p. 93.

†*Koninckopora* gen. n. genotype *Calamopora inflata* Koninck, p. 152. *K. inflata* p. 182, LEE Mem. Geol. Surv. Gt. Britain 1 3 1912.

†*Leioclema*, discussed, p. 151. *L. avonense* sp. n. p. 177. Carboniferous Gt. Britain, LEE Mem. Geol. Surv. 1 3 1912.

†*Leptotrypa ? nicholsoni, spinifera* spp. n. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939 pp. 221, 222.

†*Leptotrypella*, p. 223. *L. aequabilis, gemmata, magninodosa* spp. n. pp. 224-226. *L. moniliformis, ohioensis*, pp. 227, 228. *L. parva, pellucida, undans varia* spp. n. pp. 229-232. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.

†*Lioclema alpenense, attenuatum, incompositum, passitabulatum, traversense* spp. n. Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939 pp. 248-252.—*L.*, p. 221. *L. nekhoroschevi*, p. 222. SHULGA-NESTERENKO 80.—*L. gracillimum*, SHIMER & SHROCK 79 p. 259.

†*Mesotrypa quebecensis*, SHIMER & SHROCK 70 p. 257.



†*Microcampylus* **gen. n.** (Batostomellidae), p. 253, *M. angularis*, *granosus*, *minutus*, *multitabulatus*, *ovatus*, *tenuis*, *traversensis*, *typicus* **spp. n.** pp. 253–258, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.

†*Monotrypa* cf. *tabulata* [tabulatæ in text], BRANSON 20 p. 119.—*M. magna*, SHIMER & SHROCK 79 p. 261.

†*Monticulipora winchelli*, referred to *Atactotoechus*, DUNCAN 33 p. 197.

†*Monticuliporella arborea*, p. 255, *mammulata*, p. 257, SHIMER & SHROCK 79.

†*Nicholsonella pulchra*, *vaupeli*, SHIMER & SHROCK 79 p. 259.

†*Petalotrypa compressa*, SHIMER & SHROCK 79 p. 258.

†*Prasopora thoralis* **sp. n.** Ordovician France, PRANTL Sbor. Nár. Mus. Praha 2B 1940 p. 89.—*P. simulatrix*, SHIMER & SHROCK 79 p. 257.

†*Rhombotrypa quadrata*, SHIMER & SHROCK 79 p. 258.

†*Stenodiscus* **gen. n.** for *Stenopora*, LEE 1912 not Lonsdale, genotype *S. moniliformis* **sp. n.** Permian Tasmania, CROCKFORD Proc. Linn. Soc. N.S.W. 70 1945 p. 21.

†*Stenopora crinita*, p. 10, *spiculata* **sp. n.** p. 13, *conigua* **sp. n.** p. 14, *ovata* p. 15, *pustulosa* **sp. n.** p. 16, *hirsuta* **sp. n.** p. 17, *parallela*, *etheridgei* **spp. n.** p. 19, *johnstoni* p. 20, Permian New South Wales and Tasmania, CROCKFORD Proc. Linn. Soc., N.S.W. 70 1945.—*S. johnstoni*, HUMMEL 51 p. 74.—*Stenopora*, discussed, p. 147, *S. redesdalensis* **nom. n.** for *Monticulipora tumida* Nicholson ?not Phillips, p. 153, *S. haddingtonensis* **sp. n.** p. 156, *S. dubia*, p. 157, *S. castletonensis* **sp. n.** p. 158, *S. obliqua* **sp. n.** p. 159, *S. tenuipora* **sp. n.** p. 161, Carboniferous Britain, LEE Mem. Geol. Surv. Gt. Britain 1 3 1912.

†*Stenoporella?* *devonica* **sp. n.** Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan, U.S.A., 5 10 p. 259 1939.

†*Stereotoechus* **gen. n.** (Batostomellidae), p. 260; *S. typicus* **sp. n.** Devonian Michigan, U.S.A., DUNCAN Contr. Can. Geol. 5 10 1939.

†*Stigmatella*, p. 232, *S. alpenensis*, *hybrida* **spp. n.** pp. 233, 234, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.—*S. alcornis*, *catenulata*, p. 150, *clavis*, *crenulata*, *personata*, p. 151, *vulgaris*, p. 153, *S. lambtonensis*, a species of *Dekayia*, p. 153, *S. halysa* **sp. n.** for *S. catenulata* var. (b) Parks & Dyer, p. 153, *S. halysa crassa* = *S. sessilis crassa* Dyer, p. 154, *S. halysa* var. *erindalensis* **var. n.** p. 154, for *S. lambtonensis* part, *S. vulgaris* var. *monticulata* **var. n.** for *S. vulgaris* Parks & Dyer, p. 155, Ordovician Canada, ARMSTRONG J. Paleont. Menasha Wis. 19 2 1945.

†*Stromatotrypa ovata*, SHIMER & SHROCK 79 p. 259.

†*Tabulipora*, discussed, p. 149, *T. scotica* **sp. n.** p. 162, *T. youngi*, *minima* **spp. n.** p. 164, *T. howsei*, p. 167, *T. tenuimuralis* **sp. n.**, p. 169, *T. maeandria* **sp. n.** p. 170, *T. sparsitabulata* **sp. n.** p. 171, *T. crassimuralis* **sp. n.** p. 172, *T. multitabulata* **sp. n.** p. 173, *T. wezfordensis* **sp. n.** p. 174, *T. debilis* **sp. n.** p. 175, Carboniferous Britain, LEE Mem. Geol. Surv. Gt. Britain 1 3 1912.—*Tabulipora carbonaria*, SHIMER & SHROCK 79 p. 259.

†*Trachytoechus* **gen. n.** (Batostomellidae), p. 261, *T. romingeri*, *typicus*, **spp. n.** pp. 262, 263, Devonian Michigan, U.S.A., DUNCAN Contr. Mus. Geol. Michigan 5 10 1939.—*T. moniliformis* **sp. n.** Devonian Canada, FRITZ Trans. Roy. Soc. Can. 38 1944 p. 36 [cf. Z.R. 81 where preliminary account of this species is entered under *Inc. Sed.*].

†*Trematopora tuberculosa*, SHIMER & SHROCK 79 p. 261.

#### CRYPTOSTOMATA

†*Acanthocladiidae*, SHULGA-NESTERENKO 80 p. 170.—Key to genera, KAISIN 55 p. 99.

†*Acanthocladia sparsifurcata* **sp. n.** Permian Urals, U.S.S.R., SHULGA-NESTERENKO Paleont. U.S.S.R. Acad. Sci. 5 1941 pp. 175, 241.

†*Acrogenia prolifera*, SHIMER & SHROCK 79 p. 270.

†*Actinotrypa peculiaris*, SHIMER & SHROCK 79 p. 271.

†*Anastomopora perundata*, SHIMER & SHROCK 79 p. 264.

†*Archimedes*, p. 124, key to species, p. 127, *A. keyserlingi*, p. 127, *curtus* sp. n., pp. 129, 237, *stuckenbergi*, p. 130, *stuckenbergi* var. *perpetrabilis*, p. 131, var. *orientalis*, p. 132, Permian Urals, U.S.S.R., SHULGA-NESTERENKO Paleont. U.S.S.R. Acad. Sci. 5 1941.—*A. wortheni*, *communis*, *laxus*, *sublaxus*, *terebriformis*, SHIMER & SHROCK 79 p. 264.

†*Arthroclema armatum billingsi*, SHIMER & SHROCK 79 p. 265.

†*Arthropora simplex, bifurcata, shaferei*, SHIMER & SHROCK 79 p. 269.

†*Arthrostylus obliquus*, SHIMER & SHROCK 79 p. 265.

†*Bactropora simplex*, SHIMER & SHROCK 79 p. 267.

†*Bicorbula* gen. n. (related to *Polypora*) genotype *B. arizonica* sp. n. Permian Arizona, U.S.A., CONDRA & ELIAS J. Paleont. Menasha Wis. 19 2 1945 p. 118.

†*Chasmatoporella metzi*, PRANTL 65 p. 87.

†*Clathropora frondosa*, SHIMER & SHROCK 79 p. 267.

†*Clausotrypa monticola*, SHULGA-NESTERENKO 80 p. 219.

†*Coeloconus granosus*, SHIMER & SHROCK 79 p. 267.

†*Coscinium cribriforme, latum*, SHIMER & SHROCK 79 p. 270.

†*Cystodictya dichotoma*, BOLKHOVITINOVA & ZOLKINA 18 p. 183.

†*Cystodictyonidae*, SHULGA-NESTERENKO 80 p. 216.

†*Diamesopora dichotoma*, SHIMER & SHROCK 79 p. 271.

†*Dichotrypa* cf. *tiberica*, BOLKHOVITINOVA & ZOLKINA 18 p. 184.—*D. lyroides*, SHIMER & SHROCK 79 p. 270.

†*Dictyocladia*, p. 163, key to species, p. 164, *D. noinskyi*, p. 164, *schichanensis*, p. 166, SHULGA-NESTERENKO 80.

†*Diploporaria distans* sp. n. p. 125, cf. *distans*, *tenuis* sp. n., p. 126, cf. *biserialis*, p. 127, Carboniferous Belgium, KAISIN Mém. Inst. géol. Univ. Louvain 13 3 1942.—*D. bifurcata*, SHIMER & SHROCK 79 p. 265.—*D.*, p. 171, *youngi*, p. 172, SHULGA-NESTERENKO 80.

†*Escharopora hogbeni*, KAY 56 p. 560.—*E. subrecta, falciformis, pavonia*, SHIMER & SHROCK 79 p. 267.

†*Evactinipora grandis, radiata*, SHIMER & SHROCK 79 pp. 270 271.

†*Fenestella*, p. 39, key to species, p. 45, *F. virgosa* var. *atuberculata* var. n. pp. 49, 230, var. *minus* var. n. pp. 50, 230, var. *sparsituberculata* var. n. pp. 51, 231, *F. heterocellata* sp. n. pp. 52, 231, *angustataeformis* var. *pentagonalis*, p. 53, *lahuseni* var. *monoseriata*, p. 55, var. *microtuberculata* var. n. p. 56, *F. reteporinaeformis*, p. 57, *stshugorensis*, *stshugorensis* var. *irregularis* p. 58, *F. foraminosa*, p. 59, *foraminosa* var. *petschorica*, p. 61, var. *grandis*, p. 62, var. *grandissima*, p. 64, *eichwaldi*, p. 65, *eichwaldi* var. *magnopora* var. n. pp. 66, 231, *F. sublaticrescens*, p. 67, *sublaticrescens* var. *curvata*, p. 68, *elegantissima* var. *microporata*, p. 69, var. *cornifera* var. n. pp. 71, 232, *pseudoveneris*, p. 72, *nikiforovae*, p. 73, *rhomboidea* var. *podtscheremensis*, p. 74, *vischerensis*, p. 75, *vischerensis* var. *baschkirica* var. n., p. 76, *retiformis*, p. 77, *retiformis* var. *lunaris* var. n. pp. 79, 232, *F. juraktuensis*, sp. n. pp. 80, 232, *kungurensaeformis* sp. n. pp. 81, 233, *cavifera*, p. 81, *cavifera* var. *nitida*, p. 83, *F. microcellata*, *microfenestrata*, p. 85, *kansasensis* var. *multituberculata*, p. 87, *F. ornata*, p. 88, *ornata* var. *robusta*, p. 89, *F. biarmica*, p. 90, *tenuis*, sp. n. pp. 91, 233, *dobroljubovae*, p. 92, *lunariostellata* sp. n. pp. 93, 233, *caviferaeformis* sp. n., pp. 94, 233, *solida* sp. n. pp. 95, 234, *microaperturata* sp. n. pp. 96, 234, *microaperturata* var. *polaris*, p. 97, *conradi* var. *compacilis*, p. 98, *spinulosa* var. *permica*, p. 99, *tshernovi*, p. 101, *tshernovi*, var. *usiensis*, p. 102, *F. basleoensis*, p. 102, *basleoensis* var. *compacta*, p. 105, var. *lata*, *magna* var. n. pp. 106, 234, var. *speciosa*, p. 107, var. *vuktilensis*, p. 108, *F. specifica* sp. n. pp. 109, 235, *licharevi* sp. n. pp. 111, 235, *undecimalis*, p. 112, *quadratorpora*, p. 113, *tenuiseptata*, *schischovae* spp. n. pp. 115, 235, *schischovae* var. *schaktauensis* var. n. pp. 116, 236, *F. pulcherrima* sp. n. pp. 117, 236, *nodosaeseptata* sp. n. pp. 118, 236, *bifida*, p. 119, *bifida* var. *cyclotriangulata* var. n. pp. 121, 236, *bifida* var. *crassiseptata* var. n. pp. 122, 237, *F. pseudovirgosa*, p. 123, *multiportataeformis*, p. 124, Permian Urals U.S.S.R., SHULGA-NESTERENKO Paleont. U.S.S.R. Acad. Sci. 5 1941.

†Fenestellidae, SHULGA-NESTERENKO 80 p. 39.

†Fenestralia sancti-ludovici, SHIMER & SHROCK 79 p. 264.

†Fenestrapora occidentalis, SHIMER & SHROCK 79 p. 263.

†Fenestrellina sp., PRANTL 66 pp. 16, 27.—Fenestrellina, p. 102, *F. rudis*, p. 103, aff. *rudis*, p. 104, aff. *compressa*, p. 105, *demaneti* sp. n. p. 106, aff. *compressa* var. *nododorsalis*, p. 107, *serratulata* var. *mosana* var. n. p. 108, *densinodosa* sp. n. p. 109, *aperta*, p. 110, cf. *triserialis*, p. 111, *multispinosa*, p. 112, sp. A, sp. B, p. 114, *Fenestrellina* ? (*Polyporella* ?), p. 116, *F. ? scaldisiana* sp. n. p. 118, sp. C, p. 119, Carboniferous Belgium. KAISIN Mém. Inst. géol. Univ. Louvain 13 3 1942.—*F. elegans*, *stellata*, *emaciata*, *cestriensis*, *tenax*, *mimica*, SHIMER & SHROCK 79 p. 263.

†Fenestrellinidae, key to genera, KAISIN 55 p. 96.

†Glyptopora sagenella, SHIMER & SHROCK 79 p. 270.

†Goniocladia, p. 177, key to species, p. 182, *G. tenuis*, p. 183, *compacta*, p. 185, *varians*, p. 187, *pulchra*, p. 189, *cyclopore*, p. 192, *cyclopore* var. *magnofenestrata* var. n. pp. 194, 242, *G. zaleskyi*, p. 195, *miloradovitschi*, p. 197, *crassa*, p. 199, Permian Urals, U.S.S.R., SHULGA-NESTERENKO Paleont. U.S.S.R. Acad. Sci. 5 1941.

†Goniocladiidae, SHULGA-NESTERENKO 80 p. 176.

†Graptodictya eremita sp. n. Ordo-vician France, PRANTL Sbor. Nár. Mus. Praze 2B 1940 p. 84.

†Helopora spiniformis, harrisi, fragilis SHIMER & SHROCK 79 p. 265.

†Hemitrypa proutana, SHIMER & SHROCK 79 p. 264.

†Hexagonella petschorica, SHULGA-NESTERENKO 79 p. 217.

†Intrapora puteolata, SHIMER & SHROCK 79 p. 269.

†Lichenalia concentrica, SHIMER & SHROCK 79 p. 271.

†Loculipora perforata, SHIMER & SHROCK 79 p. 263.

†Lyrocladia, p. 133, key to species, p. 138, *L. permica*, p. 138, *angusticlada* sp. n. pp. 144, 237, *pulchra* p. 145, *pulchra* var. *schaktaensis* var.

n. p. 146, Permian Urals U.S.S.R., SHULGA-NESTERENKO Paleont. U.S.S.R. Acad. Sci. 5 1941.

†Lyropora quincuncialis, SHIMER & SHROCK 79 p. 264.

†Nematopora ovalis, SHIMER & SHROCK 79 p. 265.

†Pachydictya fimbriata, acuta, crassa, SHIMER & SHROCK 79 p. 270.

†Paleschara incrustans, SHIMER & SHROCK 79 p. 271.

†Penniretepora, p. 121, *bipinnata*, cf. *conferta*, p. 122, cf. *retroflexa*, *tenuiramosa*, p. 123, KAISIN 55.—*P. carinata*, *conferta*, SHIMER & SHROCK 79 p. 265.

†Phyllodictya varia, SHIMER & SHROCK 79 p. 269.

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# 9. MOLLUSCA

ARRANGED BY

A. E. SALISBURY, A.M.I.E.E.

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**Cambrian.**—Cambrian fossils, ULRICH, FOERSTE, MILLER & UNKLESBAY 834.

### III.—SYSTEMATIC INDEX

N.B.—FULL REFERENCES ARE GIVEN ONLY IN THE CASE OF A NEW GENUS, SPECIES OR VARIETY. IN OTHER CASES THE NUMBER IN "Large Bold Clarendon" REFERS TO THE LIST OF TITLES WHERE THE FULL REFERENCE WILL BE FOUND. WHERE THE REFERENCE IS GIVEN IN THE SYSTEMATIC PART, THE VOLUME NUMBER IS PRINTED IN **Smaller Clarendon**.

*Note.*—The arrangement here used follows, in general, that of Thiele's *Handbuch*. The most important differences are that Epitoniacea and Pyramidellacea are placed immediately preceding Muricacea in order of grouping, and the families Triviidae and Eratoidae are placed in Lamellariacea.

Where more than one page is given in a reference, the one in roman type is where a new name is first mentioned and the one in *italic* is where the gen. or sp. is actually described.

#### Polyplacophora.

#### LEPIDOPLEURACEA.

*Lepidopleurus ambustus* Dall, *can-cellatus* (Gow.), anatomical figs., E. LELOUP 548.

#### CHITONACEA.

*Amicula vestita* (Sow.), *amiculata* E. LELOUP 550.

*Ceratozona rugosa* (Sow.), figs., E. LELOUP 550.

*Chaetopleura gemma* Dall., anatomy figs., E. LELOUP 548.

Chitonacea—Collecting and preserving, S. S. BERRY 133.

†*Cryptoplax menkrawitensis* sp. nov., Upper Miocene, Borneo, C. BEETS Verk. Geol. Mijuboawk Genootsch, Nederl. Koloniëne Geol. Ser. 13 (1) 1914 p. 8 pl. 1 f. 1-3.

*Ischnochiton interstinctus* Gould and var. *radians* Pils. *Mertensi* Middff., *cooperi* Pils., *clatheratus* Rve., Anatomy figs., L. LELOUP 548.

*Katharina tunicata* (Wood), anatomy figs., E. LELOUP 548; *K. tunicata* (Wood), E. LELOUP 550.

*Lepidochiton hartwegii* Cpr. and var., *nuttallii* Cpr., anatomy figs., E. LELOUP 548.

*Mopalia heathii* Pils., *muscosa* Gould, *pedroana* Goilett, *Thamnopora* Berry, anatomy figs., E. LELOUP 548; *M. (Mopalia) hindzii* Rue., *lignosa* (Gould), *ciliata* (Gow.), *ciliata* var. *vosnessenskii* Middff., *sinuata* Cpntr., *acuta* Cpntr., *porifera* Pils., *retifera* Thiele, figs., E. LELOUP 550.

Mopaliidae, E. LELOUP 550.

*Nuttallina californica* Rve., anatomy figs., E. LELOUP 548.

*Placiphorella velata* Dall., *stimpsoni* (Gould), figs., E. LELOUP 550.

*Placophoropsis atlantica* Verrill & Smith, figs., E. LELOUP 550.

*Plaxiphora biramosa* Q. & G., *aurata* Spalowsky, *simplex* Haddon, *coelata* Rve., *matthewsi* Iredale, *parva* Nierstrasz, *albida* Blv., *oblecta* Pilsbry., (*Mercatoria*) *mercatoris* Leloup, (*Fremblya*), *egregia* Adams, figured, E. LELOUP 550.

#### Gastropoda.

##### STREPTONEURA.

##### ASPIDOBRANCHIATA.

##### RHIPIDOGLOSSA.

##### HALIOTIDACEA.

†*Altrix* nom. nov. for *Folia* Palmer 1937, Sec. of *Puncturella* (*Fissurisepta*) non Lohmann 1892 nec Mager 1912 K. V. W. PALMER, J. Paleont, Menasha, Wis. 16 5 1942 p. 674.

†*Bellerophon graphicus* pp. 121, 127 pl. 1 f. 2 a-c, 3 a-c, 4 a-c, text-fig. 6 C,

*B. singularis* pp. 121, 128 pl. 1, f. 1 a-c, spp. nov. Azawkie Limestone 9.4 m. W. of Lawrence, Pennsylvanian, Kansas, R. C. MOORE Bull. State Geol. Surv., Kansas 38 4 1941.

†*Bellerophonitidae*, Permian Cambodia, G. DELPEY 272; *Bellerophonitidae*, Physiological significance of Tubular prominences, J. B. KNIGHT 500.

†*Cyrtolites euomphaloides* sp. nov. Devonian Russia, D. V. NALIVKIN, In Fauna of Main Devonian Field (Pal. Inst., U.S.S.R. Acad. Sci.) 1 1941 pp. 229, 241 pl. 1 f. 1, 2.

*Diodora wetmorei* sp. nov. Opp. Key West, Florida, I. P. FARFANTE, Johnsonia, 18 Nov. 1945 pp. 5-6 pl. 4 f. 1-7.

†*Euphemites graffhami* pp. 101, 142, pl. 2 f. 1 a-d, 2, 3 a-b, 4 a-b, 5 a, 6, text-fig 3. C-D; *E. regulatus* pp. 121, 145, pl. 2 f. 6 a-b spp. nov. Ozawkie Limestone W. of Lawrence, Pennsylvanian, Kansas, R. C. MOORE Bull. State Geol. Surv., Kansas 38 4 1941.

†*Flemingia koloschkensis* pp. 241, 251, pl. 11 f. 8 sp. nov. Devonian, D. V. NALIVKIN in Fauna of the Main Devonian Field (Pal. Inst. U.S.S.R. Acad. Sci. 1 1941.

*Haliotis tuberculata*, locomotion, figs. and graphs., H. W. LISSMANN 559.

†*Haliotis tuvuthaensis* sp. nov. Tuvutha, Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 351 pl. 50 f. E.F.

†*Knightites* gen. nov. pp. 121, 149 (*Bellerophonitidae*) type *Knightites multicornutus* sp. nov. pp. 121, 151, 153, pl. 3, f. 1 a-b, 2 a-b, 3 a-b, 4, 5 a-b, 6 a-d, 7, 8 a-e, 9, 10 a-b text-fig. 6 AB, R. C. MOORE Bull. State Geol. Surv., Kansas 38 4 1941.

*Lucapirea eolis* sp. nov. off Key. West, Florida p. 4, f. 1-3; *L. suffusa tobagoensis* subsp. nov. Tobago Lesser Antilles p. 5, f. 4-7, I. P. FARFANTE Johnsonia 18 Nov. 1945 pl. 3.

†*Luciella gubleri* sp. nov. Permian Phnom Angkow, Cambodia, G. DELPEY J. Conchyliol. Paris 84 4 1941 p. 363, f. 36.

†*Murchisonia gubleri* sp. nov. Permian Sisophon, Cambodia, G. DELPEY, J. Conchyliol. Paris 84 4 1941 p. 367 f. 41.

†*Pleurotomaria nuda* sp. nov. Permian Phnom. Sà', Cambodia, G. DELPEY,

J. Conchyliol. Paris 84 4 1941 p. 362 f. 35; *P. Wenzukowi* pp. 204, 248 pl. 1 f. 10-12; *P. stolbovi* pp. 235, 249 pl. 1 f. 13 spp. nov. Devonian Russia, D. V. NALIVKIN in Fauna of the Main Devonian Field (Pal. Inst. U.S.S.R. Acad. Sci.) 1 1941.

†*Pleurotomariidae*, Permian, Cambodia, G. DELPEY 272.

†*Ptychomphalus sisophonensis* sp. nov. Permian, Sisophon, Cambodia, G. DELPEY, J. Conchyliol. Paris 84 4 1941 p. 360 f. 33.

†*Puncturella barksdalei* sp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944, pp. 118, 153, pl. 15 f. 6; *P. (Fissurisepta) spring valensis* sp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH York. Naturf. Ges. Basel. 54 1943 p. 127 pl. v f. 7.

†*Scissurella (Scissurella) bituminata* sp. nov. Upper Oligocene, East Indies, C. BEETS Ledische. Geol. Mededeel. 13 1942 p. 259 pl. xxvii f. 1-3.

†*Tetrabelus macgregori* sp. nov. Purari formation, Paw Creek, Middle Purari Valley, M. F. GLAESSNER Proc. roy. Soc. Vict. N.S.56 2 1945 p. 160 pl. vi f. 12 a-b.

†*Tropidodiscus volchovi* sp. nov. Devonian, Russia, D. V. NALIVKIN in Fauna of the main Devonian field (Pal. Inst. U.S.S.R. Acad. Sci.) 1, 1941 pp. 230, 246, pl. 1, f. 8-9.

†*Warthia kingi* sp. nov. Pennsylvanian (Ozawkie limestone) Deer Creek formation, west of Lawrence, Kansas, R. C. MOORE Bull. State Geol. Surv. Kansas 38 4 1941 pp. 121, 147 pl. 3, f. 11 a-b, 12 a-c, 13 a-b, text-fig. 5.

†*Woodwardia (Woodwardia) provecta* sp. nov. Upper Oligocene, East Indies, C. BEETS, Ledische. Geol. Mededeel. 13 1942 p. 260, pl. xxvii, f. 4-7.

†*Warthenia gubleri* p. 355 f. 28; *W. ? pleurotomariformis* p. 357 f. 30., spp. nov. Permian, Cambodia, G. DELPEY, J. Conchyliol. Paris 84 4 1941.

#### DOCOGLOSSA.

#### PATELLACEA.

*Acmaea cona* [corrected to *conus* vide 53 4 p. 144], Point Ferniere, San Pedro, Calif. p. 82; *A. fouae* Tona, Tonga Ids. p. 93; *A. cancellata*, Sangaura, p. 94; *A. eccentrica*, Sydney and



Port Jackson, Austràlia. "Koste de Cao" p. 95; *A. irregularis*, Simons Bay, Cape Colony, p. 95; *A. transparens* "Australia"; **spp. nov.** A. R. (G.) TEST Nautilus, Philad. 58 3 Jan. 1945. *Acmaea*, Californian, A. R. (G.) TEST 816;

†*Acmaea sinzovi* pp. 129, 364, pl. xix, f. 16-17; *A. enikalensis* pp. 129, 365, pl. xix, f. 18-21 **spp. nov.** U.S.S.R. Sarmatian, V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935.

Patellidae, N. S. Wales, G. THORNLEY, 819.

Patelloididae, N. S. Wales, G. THORNLEY 819.

### TROCHACEA.

*Aorotrema erraticum* **sp. nov.** 1½ m. off Cape Florida, 70 feet, H. S. PILSBRY & T. L. MCGINTY Nautilus, Philad. 59 1 July 1945 p. 11, pl. 2, f. 6.

†*Astraliu* (*Bolma*) *kendengense* **sp. nov.** Postjangau layers, East Java, C. O. v. R. ALTENA Over. Leids. Geol. Meded. 10 2 1928 p. 291, text-figs.

†*Beraua* **sec. nov.** of *Thalotia*, Gray (gen. *Cantharidus*) type *Cantharidus erinaceus* **sp. nov.** Miocene, Borneo, C. BEETS Verk. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 14, pl. 1, f. 18-29.

†*Calliostoma parkeri* **sp. nov.** Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944, pp. 124, 155, pl. 15, f. 4, 5; *C. (Calliostoma) tranquebaricum yzermani* **subsp. nov.** p. 277, figs. 4a, b, 5; *C. (C.) coslini* **sp. nov.** p. 279, figs. 6a, b, 7; *C. (C.) soliensi* p. 280, R. Sole p. 280, f. 8a, b, C. O. v. R. ALTENA Postjangau layers, Kendreg Beds, E. Java, Over. Leids. Geol. Meded., Leiden 10 2 1938 pp. 241-320.

†*Cantharidus (Cantharidus) berauensis* p. 13, pl. 9, f. 338-340; *C. (Beraua) erinaceus* **spp. nov.** p. 14, pl. 1, f. 18-29, Miocene, Borneo, C. BEETS Verk. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941.

*Chonebasis (Adeorbis and Discopsis of some authors)* **gen. nov.** Vitrinellidae, p. 258, type *Chonebasis peruviana* **sp. nov.** p. 262, pl. 24, f. 2, 2a, b, Zorritos, Peru; *C. recticeps* p. 260, pl. 25, f. 2, 2a, Punta Callo, Prov. of Manabi, Ecuador; *C. symmetrica* p. 261, pl. 24, f. 3, 3a, Manta, Prov. Manabi, Ecuador; *C. foliniana* p. 261, pl. 24, f. 7, 7a, Isla

del Gallo, Colombia; *C. philippii* p. 263, pl. 25, f. 1, 1a, b, Isla del Gallo, near Jamaco Dept., Nariño, Southwestern Colombia; *C. immersiceps* p. 263, pl. 25, f. 3, 3a, b, Isla del Gallo, Colombia; *C. dipsycha* p. 264, pl. 24, f. 4, 4a, b, Isla del Gallo, Colombia; *C. equatorialis* p. 264 pl. 24 f. 6, 6a, b, Punta Callo, Prov. of Marrabi, Ecuador; *C. carinata* p. 265 pl. 24 f. 5, 5a, b, Punta Callo, near port of Jipijapa, Ecuador: **spp. nov.** H. A. PILSBRY & A. A. OLSSON Proc. Acad. Nat. Sci. Philad. 97 1945.

†*Clanculus (Clanculus) clanguloides fijiensis* **subsp. nov.** Vanua, Mbalava, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 352 pl. 50, f. H. 1; †*C. submorum* **sp. nov.** Pleistocene, French Somaliland, R. ABRARD Arch. Mus. Paris (6) 18 1942 p. 51 pl. v, f. 32, 33.

*Cyclostrema interruptum* (C. B. Adams) fig., H. A. PILSBRY 662; "*Cyclostrema*" *thomasi* **sp. nov.** North Islet of Lake Worth, Palm Beach, Florida, H. A. PILSBRY Nautilus, Philad. 59 2 Oct. 1945 p. 60, pl. 6, f. 7, 7a, 7b.

*Cyclostremiscus* **gen. nov.** p. 266, Vitrinellidae, type *Vitrinella panamensis* C. B. Adams 1852 Cat. Shells Panama p. 180—Carp. Cat. Mazatlan Shells p. 238. *C. balboa* p. 267 pl. 30 f. 5, Bucaru, Los Santos Peninsula, Panama; *C. peruvianus* p. 269 pl. 30 f. 6, Lorritos, Peru; *C. gallo* p. 271 pl. 24 f. 6, 6a, b, Isla del Gallo, north of Tumaco, Colombia; *C. planospira* p. 272 pl. 29 f. 1, 1a, b, Bucaru, Los Santos Peninsula, Southern Panama; *C. bartschi* p. 272 pl. 29 f. 3, 3a, Bacaru, Panama; *C. pachynepon* p. 273 pl. 29 f. 2, 2a, b, Isla del Gallo, north of Tumaco, Colombia; *C. colombianus* p. 273 pl. 29 f. 7, 7a, Isla del Gallo, just north of Tumaco, Colombia; *C. millepunctatus* p. 274 pl. 29 f. 4, 4a, Isla del Gallo, Colombia; **spp. nov.**, H. A. PILSBRY & A. A. OLSSON Proc. Acad. Nat. Sci. Philad. 97 1945.

†*Dentallopoma* **subg. nov.** in *Turbo* type *Turbo (D.) denticolumellaris* **sp. nov.** Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 267 pl. xxvii f. 43-44.

*Diagonarulus* **subgen. nov.** of *Didianema* for *parli* **sp. nov.** off Destin, Florida, H. A. PILSBRY & T. L. MCGINTY Nautilus, Philad. 59 1 July 1945 p. 12 pl. 2 f. 10.

*Didianema (Diagonaulus) subgen. nov.*  
*pauli* sp. nov. off Destin, Florida.  
 H. A. PILSBRY & T. L. MCGINTY  
*Nautilus* Philad. 59 1 July 1945 p. 12  
 pl. 2 f. 10.

†*Euchelus (Hybochelus) kavoricus* sp.  
 nov. Vanua Mbalavu. H. S. LADD  
 Bull Bishop Mus. Honolulu 181 1945 p.  
 353 pl. 50 f. J. K.

*Gibbula sari* sp. nov. (= *Turbo* 5. Le  
 Sari, Adanson, p. 184 pl. 12 G. viii f. 5)  
 E. FISCHER PIETTE Conchyliol. Paris  
 85 3 1942 p. 282 pl. x f. 11, 12.

†*Gibbula (Colliculus) leupoldi* sp. nov.  
 Miocene, Borneo, C. BEETS Verk. Geol.  
 Mijnbouwk. Genootsch. Nederl. Koloni-  
 en Geol. Ser. 13 (1) 1941 p. 12 pl. 1  
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†*Homalopoma coombi* pp. 119, 156  
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 pl. 15 f. 2; spp. nov. Oligocene, North-  
 western Washington, U.S.A., J. W.  
 DURHAM Univ. Calif. Pub. Geol. 27 5  
 1944.

†*Isanda (Waisiolia) jucunda* p. 262  
 pl. xxvii f. 11-13; *I. (Vanitrochus)*  
*suryai* p. 263 pl. xxvii f. 14-16; spp.  
 nov. Upper Oligocene, East Indies, C.  
 BEETS Leidsche. Geol. Mededell. 13  
 1942.

†*Leptothyra duyffesi* sp. nov. Ken-  
 deny Beds, East Java, C. O. v. R.  
 ALTENA Owerl. Leids. Geol. Meded.,  
 Leiden 10 2 1938 p. 287 f. 10a, c.

†*Margarites chappelli* sp. nov. Oligo-  
 cene, N.-western Washington, U.S.A.,  
 J. W. DURHAM Univ. Calif. Pub. Geol.  
 27 5 1944 pp. 120, 154 pl. 15, f. 11.

*Mesopteryx* d. 265 subgen. nov. of  
*Lydiaphnis*, type *L. cymatotropis* sp.  
 nov. p. 266 pl. 25 f. 6, Punta Callo,  
 near port of Jipijapa, Prov. Manabi,  
 Ecuador, H. A. PILSBRY & A. A. OLSSON  
 Proc. Acad. Nat. Sci. Philad. 97 1945.

*Miralabrum* gen. nov. [Vitrinellidae]  
 type *Miralabrum unicornis* sp. nov.  
 Punta Callo, Ecuador, H. A. PILSBRY &  
 A. A. OLSSON Proc. Acad. Nat. Sci.  
 Philad. 97 1945 p. 276 pl. 30 f. 3, 3a, b.

*Monodonta lineata* da Costa, distribu-  
 tion, N. F. McMILLAN 566.

†*Norrisella trabungkaensis* sp. nov.  
 Upper Oligocene, East Indies, C. BEETS,  
 Leidsche. Geol. Mededell. 13 1942 p. 264  
 pl. xxvii f. 17-19.

†*Oxystele dorni* sp. nov. Oligocene,  
 N.-western Washington, U.S.A., J. W.

DURHAM Univ. Calif. Pub. Geol. 27 5  
 1944 pp. 124, 155 pl. 15 f. 9, 13.

†*Panastoma* gen. nov. Vitrinellidae,  
 type *Panastoma azulense* sp. nov.  
 Pleistocene, at Punta Piedra, south of  
 Puerto Armuelles, Burica Peninsula,  
 Panama, H. A. PILSBRY & A. A. OLSSON  
 Proc. Acad. Nat. Sci. Philad. 97 1945  
 p. 256 pl. 22 f. 5, 5a, b.

*Parviturbo* gen. nov. [Vitrinellidae]  
 type *P. rehderi* sp. nov. North Islet,  
 Lake Worth, Palm Beach, H. A.  
 PILSBRY & T. L. MCGINTY *Nautilus*,  
 Philad. 59 2 Oct. 1945 p. 54 pl. 6 f. 8;  
*Parviturbo weberi* 1½ m. off Cape Florida,  
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 Oct. 1945; *Parviturbo copiosus* sp. nov.  
 p. 275 pl. 30 f. 1, 1a, b, Punta Callo,  
 Ecuador; *P. decussatus clausus* subsp.  
 nov. p. 275 pl. 30 f. 2, 2a, b, Punta Callo,  
 Manabi, Ecuador; *P. germanus* sp. nov.  
 p. 276 pl. 30 f. 4, 4a, Isla del Gallo,  
 Colombia; H. A. PILSBRY & A. A.  
 OLSSON Proc. Acad. Nat. Sci. Philad.  
 97 1945.

†*Perrinia suryai* sp. nov. Upper Mio-  
 cene, Borneo, C. BEETS Verk. Geol.  
 Mijnbouwk. Genootsch. Nederl. Koloni-  
 en Geol. Ser. 13 (1) 1941 p. 10 pl. 1  
 f. 6-10.

*Phasianella umbilicata* in the Western  
 Atlantic, C. G. AGUAYO 45.

†*Scoliostoma eifliense* sp. nov. Devon-  
 ian, Richlschudz Wetteldorf, G.  
 DAHMER Genekiubergiana, Frankfurt  
 p. 350 pl. 2 f. 22a, d.

†*Skenea bituminata* p. 265 pl. xxvii  
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 pl. xxvii f. 23, 24-26; *S. insulindae*  
 p. 266 pl. xxvii f. 36-38; *S. waisinensis*  
 p. 266 pl. xxvii f. 29-31; spp. nov.  
 Upper Oligocene, East Indies, C. BEETS  
 Leidschr. Geol. Mededell. 13 1942.

*Teinostoma goniogyrus* off Destin  
 18-20 fms. p. 3 pl. 1 f. 8; *T. clavium*  
 Tavernier Key Largo p. 4 pl. 1 f. 1;  
*T. parviallum* Missouri Key p. 4 pl. 2  
 f. 2; *T. biscaynensis* Biscayne Bay p. 5  
 pl. 1 f. 4; *T. nesaeum* Missouri Key  
 p. 5 pl. 1 f. 2; *T. oblectum* "Treasure  
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*T. lerema* Missouri Key p. 6 pl. 2 f. 1,  
 1a; *T. incertum* off Destin p. 7 pl. 1  
 f. 7; *T. lituspalmarum* off Palm Beach  
 50 fms. p. 7 pl. 2 f. 3; *T. concolitoris* off  
 Lake North p. 8 pl. 1 f. 2; spp. nov.

Florida, H. A. PILSBRY & T. L. MCGINTY *Nautilus*, Philad. 59 1 1945; *Teinostoma politum ultimum* subsp. nov. p. 252 pl. 22 f. 1, 1a, b, Bahia de Adair, Senora, Mexico; *T. percarinatum* p. 252 pl. 23 f. 6, 6a, b: Bayovar, Bay of Sechura, Peru: *T. millepunctatum* p. 253 pl. 23 f. 1, 1a, b, Punta Callo, Dept. Manabi, Ecuador; *T. esmeralda* p. 253 pl. 22 f. 4, 4a, b Puerto Torda, near mouth of the Rio Esmeraldas, Ecuador; *T. concavaxis* p. 254 pl. 23 f. 4 4a, 6 Isla del Gallo, Colombia; *T. imperfectum* p. 254 pl. 22 f. 2, 2a, b Bucaru, Los Santos Peninsula, Panama; *T. americanum* p. 254 pl. 23 f. 3, 3a, b Salinas, Santa Elena Peninsula, Ecuador; *T. rarum* p. 255 pl. 23 f. 2 2a Isla del Gallo, near Turnaco, Southern Colombia; *T. soror* p. 255 pl. 23 f. 5, 5a, b Salinas, Santa Elena Peninsula, Ecuador; *T. narina* p. 256 pl. 22 f. 3, 3a, b Isla de Gallo, north of Tumaco, Dept. Nariño, Colombia; spp. nov., H. A. PILSBRY & A. A. OLSSON Proc. Acad. Nat. Sci. Philad. 97 1945. *Teinostoma pilsbryi* sp. nov. 1½ m. off Cape Florida, 70 feet, T. L. MCGINTY, *Nautilus*, Philad. 58 4 Ap. 1945 p. 147 pl. 1 of No. 59 1; *Teinostoma megastoma* (C. B. Ad.) fig, H. A. PILSBRY 662.

†*Trochus senessei* sp. nov. Cenomanian Cretaceous, Corbieres meridionales Col du Kid, France, E. BASSE & F. SÉNESSE Bull. Soc. Geol. France (5) 9 1, 2, 3 1939 pp. 23, xx pl. ii f. 1 a-c. †*Trochus praefenconianus* pp. 139, 365 pl. xix f. 40-44; *T. subbalatro* pp. 146, 366 pl. 24 f. 17-22; *T. praecurvilineatus* pp. 151, 367 pl. xxi f. 9-12; *T. obustus* pp. 154, 368 pl. xxi f. 36-37 spp. nov. Sarmatian, U.S.S.R.; *T. perfidus* pp. 156, 368 pl. xxi f. 36-37; *T. podolicoformis* pp. 166, 370 pl. xxiii f. 1-2; *T. pseudohommeirei* pp. 170, 371 pl. xxiii f. 14-15; *Trochus sarmates mediosarmatica* pp. 176, 372 pl. xxiii f. 29-31; *T. sarmates akburunensis* pp. 176, 372 pl. xxiii f. 28; vars. nov.: *T. praearmavirensis* pp. 183, 373 pl. xxiv f. 15-17; *T. pseudorollandianus* pp. 192, 375 pl. xxv f. 22-25, spp. nov. Sarmatian, U.S.S.R., N. K. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935; †*Trochus (Trochus) petrolei* sp. nov. Upper Oligocene, East Indies, C. BEETS, Leidsche. Geol. Mededeel. 13 1942 p. 261 pl. xxvii f. 8-10; †*Trochus gubleri* sp. nov. Permian, Cambodia, G. DELPEY J. Conchyliol. Paris 84 3 1941 p. 277 f. 19.

*Turbo (Dentallopora) denticolumellaris* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidschr. Geol. Mededeel. 13 1942 p. 267 pl. xxvii f. 43-44.

†*Turricula arnoldi* sp. nov. Oligocene, N.-western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27, 5 1944 pp. 116, 153 pl. 15 f. 6.

*Vitridomus* gen. nov. Vitrinellidae, type *Vitridomus nereidis* sp. nov. Punta Ancon, near Salinas, Ecuador, on the S. side of the peninsula, p. 257 pl. 25 f. 5, 5a, b: *V. fragilis* sp. nov. Punta Callo, Manabi Prov., Ecuador p. 258 pl. 25 f. 4 4a, H. A. PILSBRY & A. A. OLSSON Proc. Acad. Nat. Sci. Philad. 97 1945.

†*Waisiolia* sec. nov. *Isanda*, type *Isanda (W.) jucanda* sp. nov. Upper Oligocene, East Indies, C. BEETS, Leidsche. Geol. Mededeel. 13 1942 p. 262 pl. xxvii f. 11-13.

## NERITACEA.

†*Angkorella* gen. nov. Helicinidae [sole sp. = type] *A. sisophonensis* sp. nov. Permian Sisophon, Cambodia, G. DELPEY J. Conchyliol. Paris 84 3 1941 p. 272 f. 14.

*Cyanea lamarcki* Per. & Les. figs., W. SCHAFER 742.

*Fluvinerita tenebricosa* (C. B. Ad.) = *alticolar* Pils. quotype, figs., H. D. RUSSELL 731.

†*Mesoneritina* gen. nov. p. 7, Neritidae, type *Neritella nebrascensis* Mech & Hayden, T. C. YEN Notulae Naturae 166 1946 p. 8 f. 5.

*Nerita peloronta* L., *versicolor* Gmel., *fulgurans* Gmel., *tessellata* Gmel., figs., H. D. RUSSELL 731.

†*Nerita plexa multistriata* var. nov. Pleistocene, French Somaliland, R. ABBARD Arch. Mus. Paris (6) 18 1942 p. 55 pl. vi f. 7, 8; *N. vokesi* sp. nov. Oligocene, North-western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 118, 156 pl. 17 f. 11, 12.

Neritidae, J. JOHANSSON 474; Neritidae of the Western Atlantic, H. D. RUSSELL 731.

*Neritilia succinea* (Récluz), figs., H. D. RUSSELL 731.

*Neritina* in Aquaria, C. G. AGUAY 44; *N.* in fresh water Aquaria, H. SARASUA 737; *N. reclinata striolata* Marts proves



to be a synonym of *Neritina smithi* Sow. and not a synonym of *Neritina reclinata* Say as it is made by von Martens; *N. cassiculum* Sow. has been considered a synonym of *N. punctulata* Lk. 'here considered to be valid and of specific rank'; *N. jayana* Récluz (J. Conch.: p. 157 pl. 7 f. 13) probably *Theodoxis fluviatilis*; *N. reclinata palmarum* Dall = *N. turrita* Gmelin of the East Indies; *N. virginea* (L.), *clenchi* Russell, *meleagris* Lk. *piratica* Russell, *reclinata* (Say), figs.; '*Neritina*' *showalteri*' Lea 1861 belongs to Hydrobiidae, = *Lepyrium showalteri* (Lea) vide Dall Naut. 1896 10 pp. 13-15, H. D. RUSSELL 731.

*Puperita pupa* (L.), *tristis* (Orb.), figs., H. D. RUSSELL 731.

*Smaragdia viridis weyssei* Russell figs., H. D. RUSSELL 731.

†*Smaragdia semari* sp. nov. Miocene, Borneo, C. BEETS, Verk. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 22 pl. 1 f. 31-43.

†*Theodoxus* (*Calvertia*) *macedonicus* sp. nov. Macedonian, Proastian Ptolemaic, W. WENZ Archiv f. Mollusk. 75 2-3 1943 p. 146 f. 1-4.

†*Vergnesia* gen. nov. Neritidae sole sp. [type] *V. moreletti* sp. nov. Quonian (Bartonian) route de Cresnes, G. DELPEY Bull. Soc. Geol. Tr. (5) 10 3-6 1940 p. 49 f. 1-3.

#### PECTINOBRANCHIATA.

##### TAEONIOGLOSSA.

#### CYCLOPHORACEA.

*Ampullaria* (*Asolene*) *megastoma* Sow M. I. H. SCOTT, 774a.

*Ampullarius australis* (Orb.), *A. canaliculatus* (Lam.), *A. lineatus* (Spix), *A. cyclostomus* (Spix), C. R. BOETTGER 150; *Ampullarius* N.E. Brazil, W. S. S. c. B. JUTTING 483.

*Annularia* (*Subannularia*) *storchi laevior* subsp. nov. Holguin, Eastern Cuba, C. G. AGUAYO Rev. Soc. Malac. Habana 2 1 1944 p. 3 pl. 1 f. 6.

†*Bulimus* (*Daciella*) *carinatus valdecarinatus* subsp. nov. Pliocene, U. Day, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 57 pl. 19 f. 287-289.

Cyclophoridae, Anatomy, figs., H. TIELECKE, 822.

*Cyclophorus dodrans* J. Mab. monstr. *disjunctum*; *C. cambodgensis* L. Morlet monstr. *canaliculatum*; Tonkin LAMY &

FISCHER-PIETTE Bull. Mus. Hist. nat. Paris (2) 13 1 1941 p. 47 [nn. et ff].

†*Daciella* subgen. nov. of *Bulimus* subgenotype *Tylopoma carinata* Wenz, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 55 pl. 19 f. 286.

*Farcimen* (*Farcimen*) *auriculatum senectum caenaoense* var. nov. p. 11; *F. (F.) auriculatum remotum* subsp. nov. p. 12 pl. 1 f. 2; *F. (F.) auriculatum corralilloense* subsp. nov. p. 12 pl. 1 f. 4; *F. (F.) auriculatum pymaeum* subsp. nov. p. 13 pl. 1 f. 5; *F. (F.) auriculatum ambiguum* subsp. nov. p. 13 pl. 1 f. 7; *F. (F.) auriculatum serranum* subsp. nov. p. 14 pl. 1 f. 6; *F. (F.) majusculum* sp. nov. p. 14 pl. 1 f. 9; *F. (F.) majusculum barbouri* subsp. nov. p. 16 pl. 1 f. 8; *F. (F.) majusculum mortuarium* subsp. nov. p. 16 pl. 1 f. 10; *F. (F.) bilabiatum* sp. nov. p. 16 pl. 1 f. 12; *F. (F.) bilabiatum regium* subsp. nov. p. 17 pl. 1 f. 11; *F. (F.) bilabiatum aureum* p. 18 pl. 1 f. 13a, Cuba, O. ALCALDE Rev. Soc. Malac. Habana 3 1 1945; *F. alutaceum magnum*, *F. a. fuentesi*, *F. guitarti rupulosum*, n. subsp., C. G. AGUAYO 42; *Farcimen seminudum aguayoi*, *F. s. citrinum*, *F. s. culminis*, *F. s. protractum*, *F. jaumei parvulum*, *F. s. striatellum*, *F. j. jaumei*, *F. imperator imperator*, *F. i. castañoi*, *F. cisnerosi edouardi*, *F. c. cisnerosi*, *F. c. sanchezis*, *Farcimen* (*Farcimen*) *seminudum* subsp. *protractum* p. 40 pl. 5 f. 4, *culminis* p. 40 pl. 5 f. 2, *aguayoi* p. 41 pl. 5 f. 1, *citrinum* p. 41 pl. 5 f. 2, subsp. nov.; *F. (F.) guitarti rugulosum* subsp. nov. p. 42 pl. 5 f. 15; *F. (F.) jaumei* sp. nov. p. 43 pl. 5 f. 7; *F. (F.) jaumei* subsp. *parvulum* p. 44 pl. 5 f. 5; *striatellum* p. 44 pl. 5 f. 6, subsp. nov. *F. (F.) imperator* sp. nov. p. 44 pl. 5 f. 8; *F. (F.) i. castañoi* subsp. nov. p. 45 pl. 5 f. 9; *F. (F.) cisnerosi* sp. nov. p. 45 pl. 5 f. 11; *F. (F.) cisnerosi* subsp. *sanchezis* p. 46 pl. 5 f. 12, *edouardi* p. 46 pl. 5 f. 10; subsp. nov. *F. (F.) alutaceum magnum* subsp. nov. p. 49 pl. 5 f. 13, *alutaceum fuentesi* subsp. nov. p. 50 pl. 5 f. 14, O. A. LEDON Rev. Soc. Malac. Habana 3 2 1945 pp. 39-50.

*Farcimen* (*Farcimen*) *procer roigi* subsp. nov. p. 86 f. 4; *F. (F.) obesum obesum luteum* var. nov. p. 87 f. 2; *F. (F.) obesum subobesum salleanum* var. nov. p. 88 f. 1; *F. (F.) camagueyanum gravidum* subsp. nov. p. 90 f. 3; Cuba, O. A. LEDON Rev. Soc. Malac. Habana 3 3 1945.



*Farcimoides (Jaumeoconcha) bartschi* sp. nov. Las Oudrones Arriba, Buenos Aires, Cienfuegos p. 38 pl. 6 f. 1, O. A. LEDON 543; *Farcimoides (Jaumeoconcha) bartschi* sp. nov. Cuba O. A. LEDON Rev. Soc. Malac. Habana 3 2 1945 p. 38 pl. 6 f. 1.

*Jaumeoconcha* subgen. nov. of *Farcimoides* type *Farcimen (Farcimen) seminudum magister* Torre & Bartsch, O. A. LEDON Rev. Soc. Malac. Habana 3 2 1945 p. 37.

†*Lioplacodes convexiculus* sp. nov. Lower Cretaceous, Gage Creek, Wyoming, T. C. YEN *Notulae Naturae Philad.* 166 1946 p. 11 f. 9, 96; † *L. mariana* sp. nov. Paleocene, Sheridan Co., Wyoming, T. C. YEN *Amer. J. Sci.* New Haven 244 1 1946 p. 44 pl. 1 f. 5a-c.

*Marisa rotula* Mous., *cornuarietis* (L.), C. R. BOETTGER 150.

*Pupina destructa* Heude fig., A. LILCH.

*Tomocyclus lunai* sp. nov. Santecomanpan, Vera Cruz, P. BARTSCH *Proc. Biol. Soc. Washington* 58 1945 p. 63.

Viviparidae of Amper, figs., H. MODEL 592; Viviparidae Nomenclature, H. SCHLESCH 766.

*Viviparus suifuensis* Suifu (Ipin); Szechuan Province, China p. 64 pl. 7 f. 1; *V. pingi* Foochow, Fukien Province, China p. 64 pl. 7 f. 2; spp. nov. *V. quadratus grahami* Suifu (Ipin) Szechuan Province, China p. 65 pl. 7 f. 3 subsp. nov. S. F. CHEN *Nautilus Philad.* 52 2 Oct. 1945; *V. ningkuoensis* nom. nov. for *Paludina heudei* Ping 1938 not *Vivipara quadrata heudei* Dantz & Fisch. 1905, S. F. CHEN *Nautilus Philad.* 59 2 Oct. 1945 p. 56; *Viviparus viviparus* L. figs. H. MODEL 592; *Viviparus*—Nomenclature of the European, H. SCHLESCH 754; *V. viviparus* L. sinistral, W. THURGOOD 820.

### VALVATACEA.

*Valvata piscinalis* (Müll) from Lake Erie, I. C. ROBERTSON 718.

### LITTORINACEA.

*Acme inchoata* Ehrmann, U. STEUS-LOFF 806.

†*Acme lineata* (Drap.) not known living in Essex, A. S. KENNARD 494.

*Adamsiella (Cubadamsiella) lamellata* sp. nov. Cuartón de Alonso, finca El

Capetas, La Sierra, Cienfuegos, Las Villas, O. A. LEDON Rev. Soc. Malac. Habana 3 3 1945 p. 94.

*Chondropoma (Chondropomisca) unilabiatum maisianum* 'Baga' Maisi p. 5 pl. 1 f. 2; *C. (Chondropomisca) solidulum banesense* Cayo de la Rego Banes, p. 5 pl. 1 f. 1: subsp. nov. from Eastern Cuba, C. G. AGUAYO Rev. Soc. Malac. Habana 2 1 1944; *C. (Chondropoma fuentesi* sp. nov. 'Santa Martina,' Rio Arimao, Gavilán, Cienfuegos, Prov. of Las Villas, Central Cuba, M. L. JAUME & O. A. LEDON Rev. Soc. Malac. Habana 2 2 1944 p. 39; *C. (Chondropomisca) solidulum lucreciae* Aguayo, C. G. AGUAYO 31.

Lacunidae species of the West Coast of America, ANON 74.

*Limadora auriculata* sp. nov. Banes Eastern Cuba, C. G. AGUAYO Rev. Soc. Malac. Habana 2 1 1944 p. 4 pl. 1 f. 5.

Litiopidae, species of the West Coast of America, ANON 74.

*Littorina (Melaraphe) sundaica* sp. nov. Tjilaoet Euren, South Coast of Java, C. O. & R. ALTENA *Zool. Meded. Leiden* 25 1945 p. 151, text-fig. 2 p. 152; *L. obtusata* pigmentation, P. H. FISCHER 321; *L. littorea* L. *L. obtusata* L., anatomy, figs., J. JOHANSSON 475.

Littorinidae species of the West Coast of America, ANON 74; Littorinidae, Anatomy, J. JOHANSEN 475.

*Opisthosphon quinti petri* subsp. nov. Cayo Guillermo norte de Camagüey, Cuba, C. G. AGUAYO & M. L. JAUME, Rev. Soc. Malac. Habana 3 3 1945 p. 96 pl. 9 f. 6.

*Parachondria pfeifferi* nom. nov. for *Cyclostoma luridum* "Gundlach" Pfeiffer Malak. Blat. 5 45, 46 non. Pfr. P.Z.S. 1852 p. 63 Rev. Soc. Malac. Habana, AGUAYO, C. G. 3 1 1945 p. 32; *P. holguinensis* sp. nov. Holguin, East Cuba, C. G. AGUAYO Rev. Soc. Malac., Habana 2 1 1944 p. 1 pl. 1 f. 3;

*Pomatias elegans*, locomotion, H. W. LISSMANN; *Rhytidopoma honestum barroi* subsp. nov. Loma "El Mamey" Cayajabos, provincia de Pinar del Rio, Cuba, C. G. AGUAYO & M. L. JAUME Rev. Soc. Malac. Habana 3 3 1945 p. 94 pl. q. f. 4, 5; *R. violaceum* "Eh Hatillo" San Miguel de los Baños, p. 7 pl. 2 f. 2; *R. scalarinum* "Vista Hermosa" Valle de Guamacaro, p. 8 pl. 2 f. 3 spp. nov. Cuba, M. L. JAUME & L. S. DE FUENTES Rev. Soc. Malac. Habana 2 1 1944.

†*Trochonema cambodgensis* sp. nov. Permian Cambodia, G. DELPEY, J. Conchyliol. Paris 84 3 1941 p. 273 f. 15.

*Tudora* (*Wrightudora*) *banensis* sp. nov. Banes Eastern Cuba, C. G. AGUAYO Rev. Soc. Malac. Habana 3 1 1944 p. 3 pl. 1 f. 4.

†*Turbinilopsis decoratus*, p. 275 f. 17; *T. rotundus* p. 276 f. 18 spp. nov. Permian Cambodia, G. DELPEY, J. Conchyliol. Paris 84 3 1941.

### RISSOACEA.

†*Alvania asphaltodes*, p. 268, pl. xxvii, f. 34-35; *butonensis*, p. 269 pl. xxvii f. 39-40; *maisimensis*, p. 269 pl. xxvii f. 41-42 spp. nov. Upper Oligocene, East Indies, C. BEETS, Leidsche. Geol. Mededeel. 13 1942.

*Assimineae* *gragana* (Leach) figs., N. Gra Marsk, W. SCHAEFER 741; *Avenionia bourguignati*, Locard 1883, L. A. W. C. VENMANS 839; *A. bourguignati* (Loc.), L. A. W. C. VENMANS 840.

Barleeidae species of the West Coast of America, ANON 74.

†*Belgrandia marginata* (Mich.), fig., A. S. KENNARD 495.

*Bythinella dunkeri* (Franzid) *viridis* (Poir.), *abbreviata* (Mich.), in Belgium, figs., W. ADAM 15; *B. molesanyi* sp. nov. Gutue Gebriges, H. WAGNER Allatlani Kogl 38 1941 Budapest pp. 197-210.

†*Charydobia cretacea* sp. nov. Lower Cretaceous Sage Creek beginning, T. C. YEN Notulae Naturae Philad. 166 1946 p. 10 f. 8.

*Dissentoma prima* gen. et. sp. nov. Off Singers Island near North inlet of Lake Worth, Palm Beach, Florida [Rissoidae?], H. A. PILSBRY, Nautilus Philad. 59 2 Oct. 1945 p. 59 text-figs.

†*Durangonella* gen. nov. of Bulimidae, Hydrobiinae genotype *Hydrobia seemani* Frauenfeld, J. T. E. MORRISON, Nautilus, Philad. 59 1 July 1945 p. 18 pl. 3 f. 1-5-10; †*Durangonella mariae* marl deposits L. Tlahusa, Mexico p. 20 pl. 3 f. 2; *D. dugesiana* near Andocutera, Mexico p. 21 pl. 3 f. 3; *D. pilsbryi* Paso del Rio, Colinea, p. 22 pl. 3 f. 4 spp. nov., J. P. E. MORRISON Nautilus Philad. 59 1 July 1945.

*Hydrobia* [sic] *ulvae*, Penn. fig., p. 138, W. SCHAEFER 741.

*Hydrobia rheophila* sp. nov., estuary of Congo River at Kala-Kala near

Matadi, Belgian Congo, J. C. BEQUAERT & W. J. CLENCH Bull. Mus. Comp. Zool. Harvard 88 1 1941 p. 8 pl. 2 f. 4; *H. jenkinsi*, Smith in Belgium, W. ADAM 21; *H. plena*, B. & C., fig., J. C. BEQUAERT & W. J. CLENCH 124; *H. stagnorum* (Gould) the valid name for *Helix stagnalis* L., L. B. HOENHUIS 426.

†*Hydrobia viratamensis*, pp. 214, 378 pl. xxvii f. 9-13; *H. enikalensis*, pp. 216, 379 pl. xxvii f. 22-26, spp. nov. Garinatian, U.S.S.R., V. P. KOLERNIKOV, Paleont. U.S.S.R. Acad. Sci. 10 2 1935; *H. pontilitoris* sp. nov. Pont. Pliocene, W. WENZ, Senckenbergiana, Frankfurt 24 1942 p. 45 pl. 13 f. 166-168; *H. vincta* sp. nov. Paleocene Sheridan Co., Wyoming, T. C. YEN Amer. J. Sci. New Haven 244 1 1946 p. 45 pl. 1 f. 8.

*Lobogenes schoatedeni* B. & C., p. 2 f. 11-12; *L. Zairensis* B. & C., pl. 2 f. 5, J. C. BEQUAERT & W. J. CLENCH 124.

*Paladilhioopsis gebhardti* H. Mag., *P. hungarica* Soos., *P. liruthi*, C. R. BEETS, H. WAGNER 855.

*Paraprosothenia gredleri* (Neumayr), in the Hydrobiinae, figs., pl. 6 f. 6-9 Nautilus Philad. 58 1945, P. BARTSCH & J. P. E. MORRISON 106.

*Potamopyrgus crystallinus* Pfr., fig., W. ADAM 21; *P. jenkinsi* habitat, G. D. H. CARPENTER 190.

†*Protamnicola* gen. nov. Amnicolidae, type *Protamnicola naticoides* sp. nov. Lower Cretaceous Sage Creek, Wyoming, T. C. YEN Notulae Naturae 166 1946 p. 9 f. 6.

*Pseudamnicola confusa* (Frauen) in Belgium, W. ADAM 14.

†*Pyrgula boteniensis* sp. nov. Pliocene O Daz, Boteni dei Campulung, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 50 pl. 15 f. 229-234.

*Rissoa parva*, Phototropism, fig., J. DELPEY & A. MAGNE 265; *R. porifera* Lovén, *R. membranacea* J. Ad., *R. octona*, L., *R. inconspicua* Alder., *R. violacea* Desm., anatomy figs., J. JOHANSSON 475; Rissoidae, species of the West Coast of America, ANON 74.

Rissoidae, Anatomy, J. JOHANSSON 475.

*Rissoina angusta* Hedley in Stewart Island N.Z., M. DESJARDIN 277.

†*Rissoina* (*Schwartziella*) *indrai* p. 23, pl. 1 f. 44-48, 52-56; *R. ?* (*Rissoina ?*)

*ramai* p. 24, pl. 9 f. 34-342; *R. (Rissolina) semari*, p. 25 pl. 1 f. 57-58 **spp. nov.**, C. BEETS Verk. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; *R. (Leaella) attenai* **sp. nov.** Upper Oligocene, East Indies, C. BEETS, Leidsche. Geol. Mededeel. 13 1942 p. 270 pl. xxvii f. 27-28.

*Septariellina congolensis*, Bequeart & Clench, specimens three times size of type from Congo Estuary, J. C. BEQUAERT W. S. CLENCH 124.

†*Glantonogyra* **gen. nov.** Amnicolidae type *goniobasis? silberlingi* Stanton Pr. Ad. Philos. Soc. 42 198 pl. 4 f. 3 1903, T. C. YEN, Notulae Naturae 116 1946 p. 10 f. 7.

†*Triasamnicola* **gen. nov.** p. 49 [Amnicolidae?] type *T. Pilsbryi* **sp. nov.** Trias, Chile formation, Southern Utah, p. 50 pl. 1 f. 9 a-d; *T. latispira* **sp. nov.** loc. as genotype, p. 51 pl. 1 f. 10 a-b; T. C. YEN & J. B. REESIDE Amer. J. Sci., New Haven 244 1 1946.

*Truncatella subcylindrica*, note on, L. BERNER 130.

*Valvatorbis mauritii*, B. & C. pl. 2 f. 9, J. C. BEQUAERT & W. J. CLENCH 124.

*Vitrinella helicoidea tinctoria*, *hyalina*, *megastoma*, *interruptum*, all of C. B. ADAMS, figs., H. A. PILSBRY 662.

†*Vitrinella molengraaffi* **sp. nov.** Poetjangan layers, East Java, C. O. & R. ALTENA, Over Leidsche. Geol. Meded. 10 2 1938 p. 297 f. 16 a-c.

### CERITHIACEA.

†*Architectonica (Solatisonax?) asphal-todes* **sp. nov.** Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 271 pl. xxvii f. 45-47.

†*Bittium bramkampii* **sp. nov.** Oligocene, N. Western Washington, U.S.A., J. D. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117 165 pl. 18 f. 4.

*Caecum glabrum* Montagu Biology, E. GÖTZE 383.

†*Campanile acutispinosum* **sp. nov.** Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 57 pl. 3 f. 110-112.

*Cerithidea (Cerithiopsisilla) cingulata* (Gmel.), *C. (Cerithiopsisilla) djadjari-*

*ensis* (K. Martin), *C. Cerithiopsisilla) arata* (Phil.), *C. (Cerithiopsisilla) microp-tera* (Kiener), figs. (a revision), L. O. V. R. ALTENA 62.

†*Cerithiopsis Palmerae* **sp. nov.** Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117, 164 pl. 18 f. 2.; *C. quadriconilicosta* **sp. nov.**, Lower Miocene, Machigar Section, I. P. KHOMENKO. Trans. Geol. Oil Trust A 103 1938, pp. 58, 71 pl. xvii f. 1, 2.

†*Cerithium poetjanganense* **sp. nov.** Kendery Beds, East Java, C. O. v. R. ALTENA, Over. Leids. Geol. Meded., Leiden 12 1 1941 21 f. 4, 5 a, b; *C. gerthi* **sp. nov.**, Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942 p. 272 pl. xxvii f. 53-54; *C. bayeri* p. 45 pl. 2 f. 68 pl. 9 f. 351-352, *C. mangkalikantense* p. 47 pl. 9 f. 356, *C. (Proclava) leupoldi* p. 48 pl. 2 f. 78-79, *C. (P.?) sawitrai* p. 50 pl. 2 f. 49, *C. (Hemicerithium) semari* p. 55 pl. 2 f. 87-94; **spp. nov.** Miocene Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; *C. nymphoides* pp. 227-380 pl. xxviii f. 25-27; *C. nefaris* pp. 229, 381 pl. xxviii f. 35-37; *C. penetrabile*, pp. 230, 381 pl. xxviii f. 16-17, **spp. nov.** Sarmatian, U.S.S.R., V. P. KOLESNIKOV Paleont., U.S.S.R. Acad. Sci. 10 2 1935.

†*Euomphalus solariformis* **sp. nov.** Permian, Cambodia, G. DELPEY, J. Conchyliol, Paris, 84 3 1941 p. 263 f. 6; *E. territies*, **sp. nov.**, Permian Cambodia, G. DELPEY, J. Conchyliol, Paris 84 3 1941 p. 263 f. 5.

†*Glaucônia (Gymnentome) costata* **sp. nov.** Albian-Cenomanian of Santoreus, G. DELPEY, J. Conchyliol, Paris 84 1 1941 p. 86 f. 4.

*Goniobasis livescens*, in Michigan, C. GOODRICH 379.

*Hemisinus tuberculatus* (Wagner), fig., N.E. Brazil, W. S. S. v. JUTTING.

Io population decreasing, H. S. G. SCHALIE 745.

†*Itieria californica* **sp. nov.**, Upper Jurassic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington, D.C. 56 10 1945 p. 974 pl. 13 f. 5.

†*Loxonema missouriensis* **sp. nov.** Carboniferous limestone 1½ miles W. of Kissenger, Pike Co., Mo., J. S. WILLIAMS, Prof. Pap. U.S. Geol. Surv. 203 1943 p. 103 pl. 9 f. 23.

†*Melania* (*Melanoides*) *fragileplicata* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 36 pl. 9 f. 344-350.

†*Menkrawia callosalabiata* gen. & sp. nov., Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 pp. 41, 42 pl. 2 f. 69, 70-73, 77.

†*Mitrella* (*Macrurella*) *nassoides nana* var. nov. Baarlo, p. 78 pl. 9 f. 12-14; *M.* (*Thiarinella*) *compta borealis*, p. 78 pl. 12 f. 38, 39, Miocene, Holland, J. H. v. VOORTHYSEN, Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C. 4 1 5 1944.

†*Nerinella indosinica*, p. 73 f. 69, Permian Takrean; *N. senior*, p. 75 f. 70, Permian, Sisophon: spp. nov. Cambodia, G. DELPEY, J. Conchyliol, Paris 85 1 1942.

†*Oonia Mediocris* sp. nov. Permian, Sisophon, G. DELPEY, J. Conchyliol, Paris 85 1 1942 p. 64 f. 59.

*Pachychilus* (*Doryssa*) *consolidatus brancoënsis* subsp. nov. Rio Branco, Brazil, T. HALTENORTH & S. JAECKEL Archiv f. Molluskenk 73 1 1941 p. 48 f. 1 a b; *P.* (*Doryssa*) *pernambucensis annuratus* subsp. nov. Rio Tocantin, Brazil, T. HALTENORTH & S. JAECKEL Archiv f. Molluskenk 73 1 1941 p. 49 f. 2 a. b.

†*Palaeostylus bipartitus* sp. nov. Permian, Sisophon, Cambodia, G. DELPEY, J. Conchyliol, Paris 85 2 1942 0 72 f. 68.

*Philippia lepidia* nom. nov. = *Solarium pseudoperspectivum* Weinkauff, J. de C. 10 p. 349 1862; *S. pulchellum* Tiberi 1868, J. de C. 16 p. 179 = *S. mediterraneum* (non Phil.), Montits Notizie . . C. BAYER Zool. Meded. Leiden 22 1-2 1942 p. 12.

†*Plesiotrochus tomlini* sp. nov., Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 57 pl. 3 f. 102-105.

*Potadoma agglutinans* sp. nov., Estuary of the Congo on left bank at Kala-Kala near Matadi, Belgian Congo, J. C. BEQUAERT & W. S. CLENCH Bull. Mus. Comp. Zool. Harvard 88 1 1941 pp. 3 6 10 pl. 1 f. 1-8 10 text-figs. 1 C-E; *P. mansonii* sp. nov., Estuary of the Congo River right bank near Matadi,

Belgian Congo, J. C. BEQUAERT & W. J. CLENCH Bull. Mus. Comp. Zool. Harvard 88 1 1941 p. 9 pl. 1 f. 9 11 12.

*Potamanax* Pils., on the subgenus, C. G. AGUAYO 35.

†*Potamides menkrawitensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 37 pl. 2 f. 67, 74-76; *P. sisophonensis* sp. nov. Permian, Sisophon, Cambodia, G. DELPEY, J. Conchyliol, Paris 85 1 1942 p. 68 f. 64; *P. lamarki*, Brngt., Andilly, France, R. SOYER 798.

†*Protoma proto fabrei* var. nov. Miocene Carry, F. CATZIGNAN & D. MONGIN Bull. Mus. Hist. Nat. Marseille 2 3 1942 p. 197 figs.

*Pseudomalaxis bulesi* sp. nov. Missouri Key, Florida, H. A. PILSBRY & T. L. MCGINTY, Nautilus Philad. 59 1 July 1945 p. 10 pl. 2 f. 8.

†*Pseudomelania* (*Hudlestoniella*) *gubieri* sp. nov. Permian, Sisophon, G. DELPEY, J. Conchyliol, Paris 85 1 1942 p. 64 f. 57-58.

†*Serratocerithium jacobii* sp. nov., Eocene, Paris Basin, A. CHAVAN, J. Conchyliol, Paris 84 2 1941 p. 173 f. 7, 8.

*Solarium perspectivum heurni* var. nov., E. Sumatra, C. BAYER Zool. Meded. Leiden 23 3-4 1940 p. 244 figs. 4 a-c; *S. acuticarinatura* Thiele; *S. acutissimam* Sow. III; *S. calcar* Costa; *S. supraditum* Martin and *S. Tricarinata* (Stearns) listed as "Species incertae sedis" (Catal & revision), C. BAYER.

*Soleniscus gubieri* p. 58 f. 50; *S. oviformis* p. 62 f. 55 spp. nov., Permian, Sisophon, G. DELPEY, J. Conchyliol, Paris, 85 1 1942.

†*Spirochrysalis cambodgensis* sp. nov., Permian, Phnom Takrean, Cambodia, G. DELPEY, J. Conchyliol, Paris 85 1 1942 p. 66 f. 62.

†*Subulites mansuyi* sp. nov., Permian, Sisophon, G. DELPEY, J. Conchyliol, Paris 85 1 1942 p. 55 f. 47.

†*Torinia* (*Torinia*) *mitrai* sp. nov., Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 30 pl. 2 f. 60-62.

*Triphora barnardi* nom. nov. for *T. capensis* Thiele 1925, non Bartsch 1915, J. R. LE B. TOMLIN, J. Conch, London 22 6 p. 135.



†*Triphora (Inella) indrai* p. 60 pl. 3 f. 115; *T. (Inella) maharatai*, p. 62 pl. 4 f. 145-146, **spp. nov.**, Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Soc. 13 (1) 1941.

†*Turritella Terebra kendengensis* **subsp. nov.**, Tactjangan layen, East Java, C. O. v. R. ALTENA Overd. Leidsche Geol. Meded. 10 2 1938 p. 301 f. 21-24; *T. damarwulani* **sp. nov.**, Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 27 pl. 1 f. 49, 51; *T. olympicensis* **sp. nov.** Oligocene N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 116, 163 pl. 17 f. 1-5; *T. dinitzini* **sp. nov.** Middle Miocene, Sahhalin Id., I. P. KHOMENKO, Trans. Geol. Oil Trust, Moscow A 103 1938 pp. 58, 70 pl. xv f. 12; *Turritella (Haustator) eryna communiformis*, p. 20 pl. 3 f. 1-7; *turritiformis*, p. 21 pl. 3 f. 8-11 **vars. nov.**; *T. (H.) unipseudocarinata* **sp. nov.** Tiefbokrunen in Peelgebiet, p. 17 pl. 1 f. 1-12 pl. 2 f. 15, Miocene, Holland, J. H. v. VORTHONGEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C. 4 1 5 1944; *Turritella fuchsi*, Penecke, P. JODOT 470.

### AMALTHEACEA.

Fossaridae species of the West Coast of America, ANON. 74.

### CALYPTRAEACEA.

*Crepidula fornicata* L. distribution, H. H. BLOOMER 139; *C. fornicata* in Europe, Economics, P. KORRINGA 503; *Crepidula*, A. G. SMITH 789.

†*Crucibulum ? springvaleense* **sp. nov.** Upper Miocene, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 138 pl. iv f. 8.

†*Piatyceras bellulium gibbum* **subsp. nov.** Richtschonitt Watteldorp, Devonian, G. DAHSNER Senckenbergiana, Frankfurt 26 5 1943 p. 343 pl. 2 f. 15-19; *P. menchikoffi* **sp. nov.** Upper Devonian, Maden, Yahia, U.S.A., G. DELPEY Bull. Soc. Géol. France (5) 9 4-5 1939 p. 261 text-figs. 2, 3 6-7; *P. parvispinum* **sp. nov.** = *P. dumosum* Conrad (pars), Middle Devonian, New York or Pennsylvania? B. F. HOWELL Notulac Naturac Philad. 152 1945 p. 1 figs.

### STROMBACEA.

*Strombus jeffersonia* **sp. nov.** Marco Beach, Collier Co., Florida, T. V. HYNING Mollusca 1 7 1945 p. 95 figs.; *S. pugilis alatus* Guechis egg laying, W. J. BOWES 156; *S. gigas* L. an albino, P. D. FORD 356; *S. pugilis alatus* variation, C. GOODRICH 380.

†*Strombus (Labiostrombus) ratteni* **sp. nov.** Kendery Beds, East Java, C. O. v. R. ALTENA Ober. Leids. Geol. Meded., Leiden 12 1 1941 p. 58 f. 15 a, b.

### ATLANTIDACEA.

†*Atlanta (Atlanta) indoceratoides* **sp. nov.** Upper Oligocene, East Indies, C. BEETS, Leidsche. Geol. Mededel. 13 1942 p. 275 pl. xxviii f. 55-57.

### NATICACEA.

†*Globularia (Cernina) fijiensis* **sp. nov.** Lakemba (Miocene) Law, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 358 pl. 51 f. A, B.

†*Gyrodes globosus* **sp. nov.** Permian, Cambodia, G. DELPEY J. Conchyliol. Paris 84 3 1941 p. 266 f. 8.

*Natica fanel rocuignyi* **var. nov.** p. 277 pl. x f. 7; *N. michaelis* **nom. nov.** pp. 275, 276; *N. adansonii* Phil. 1894 Z. f. Malak. p. 155 non Blainville, E. FISCHER-PIETTE J. Conchyliol. Paris 85 3 1942; *Natica*, fossil faeces, C. O. v. R. ALTENA 54; '*Natica*' *hantoniensis* Pilkinton, A. CHAVAN 202.

†*Natica hypophypha* **sp. nov.** Kendeng Beds, East Java, C. O. v. R. ALTENA Over. Leids. Geol. Meded., Leiden 12 1 1941 p. 72 f. 21 a-c; †*N. otitis* **sp. nov.** Kendeng Beds, East Java, C. O. v. R. ALTENA Over. Leids. Geol. Meded., Leiden 12 1 1941 p. 74 f. 22 a-c.

†*Naticonema ? peribiatum* **sp. nov.** Devonian, Hacı-Remlia, S.W. of Taouz, D. LEMAITRE Notes.Niem. Serv. Mines Geol. Nearoc. 61 1944 p. 77 pl. viii f. 23-25 pl. A, f. 15.

†*Pachycrommium stockwells* p. 359 pl. 51 f. C. D. Vanua Mbalavu; *P. ? pacificum* p. 359 pl. 51 f. E, F *Oneata* **spp. nov.** Miocene Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945.

†*Polinices (Mammilla) subfilosus* **sp. nov.** Kendeng Beds, East Java, C. O. v. R. ALTENA Over. Leids. Geol. Meded., Leiden 12 1 1941 p. 66, f. 10 a, b.; †*P.*

*bituminatus* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 276 pl. xxvii f. 48, 49; †*P. boutakoffi* sp. nov. Upper Miocene, Trinidad, R. RIETSCHE Verh. naturf. Ges. Basel 54 1943 p. 139 pl. vi, f. 7 a, b.

*Sigaretus* (*Eunaticina*) *perobliquus* Dautz & Fischer, C. O. v. R. ALTENA 54.

†*Sinum lekalekanum* sp. nov. Vanua Mbalava, Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 357 pl. 50 f. O, P.

### LAMELLARIACEA.

†*Cleotrivia beranensis* sp. nov. W. Borneo, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 116.

†*Erato mackini* sp. nov. [author retains this under Cypraeidae] Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117, 165 pl. 18, f. 7, 9.

*Proterato sulciferu* Sow. F. A. & H. SCHILDER 753.

*Prototrivia* monotype *wetherellii* Edwards (Worcester Park, Surrey, coll. Wrigley), F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 118.

*Pseudotrivia cos* Roberts F. A. & H. SCHILDER 753.

†*Trivia dujardini*, *T. grateloupi*, *T. nassa*, *T. subdilata* spp. nov. Tertiary, F. A. SCHILDER Archiv f. Molluskenk. 73 2-3 1941 p. 114.

*Trivirostra edgari insularum*, Micronesia; *shawi bocki*, Gilbert Ids.; *edgari tomlini*, E. Africa, F. A. & H. SCHILDER Arch. Zool. Stockholm 36 2 1945 p. 14; *T. hordeacea* Kiener, *T. edgari* Shaw, *T. shawi* Schilder, F. A. & H. SCHILDER 753.

### CYPRAEACEA.

*Amphiperas ovum* (L.), F. A. & H. SCHILDER 753.

†*Ampullospira martini* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 79 pl. 4 f. 153-155; pl. 9 f. 353-355.

†*Apiocypraea montanaroe* sp. nov. Montegibio (Mus. Modena), F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 118.

†*Aplocypraea biarritzensis* sp. nov. Biarritz, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 115.

*Blasicrura kieneri* Hidalgo, *hirundo* (L.) *ursellus* (Gmel.), F. A. & H. SCHILDER 753.

*Callistocypraea aurantium* (Gmel.), F. A. & H. SCHILDER 753.

*Chelycypraea testudinaria* (L.), F. A. & H. SCHILDER 753.

*Cribraria cribraria* (L.), F. A. & H. SCHILDER 753.

*Cypraea rashleighana* Melvill, extension of range, W. M. INGRAM 446; *Cypraea* fauna of the littoral, F. A. SCHILDER 752; *C. tigris* L., F. A. & H. SCHILDER 753.

†*Cypraea* (*Lyncina*) *carneola lakemba* subsp. nov. Lakemba p. 362 pl. 51 f. K, L; pl. 52 f. A; *C. (Erronea) mbalavuensis* sp. nov. Mbalavu p. 364 pl. 52 f. H-J; Moll. from Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945.

Cypraeacea, F. A. SCHILDER 750; Cypraeacea, distribution, F. A. SCHILDER 752a; Cypraeacea, young forms of shells, F. A. SCHILDER 752a.

†*Cypraedia orglandensis* sp. nov. B. Mus. (58386), F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 115.

Cypraeidae of the Admiralty Islands, W. M. INGRAM & K. W. KENYON 448; Cypraeidae from Espiritu Santo Island, New Hebrides, W. M. INGRAM & K. W. KENYON 449; Cypraeidae—population, F. A. SCHILDER 751.

*Erosaria cernica* (Sow), *helvola* (L.), *caputserpentis* (L.), *poraria* (L.), *erosa* (L.), F. A. & H. SCHILDER 753; *E. erronea* (L.), *caurica* (L.), F. A. & H. SCHILDER 753.

†*Erosaria mombasensis* sp. nov. Pliocene, Mombasa, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 115.

†*Erronea* (*Adusta*) *kamai* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 82, pl. 4 f. 156-179.

†*Globularia* (*Megatylotus*) *berauensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 78, pl. 4 f. 147-152.

*Luria isabella* (L.), F. A. & H. SCHILDER 753.

*Lyncina lynx* (L.), *vitellus* (L.), *ventriculus* (L.), *carneola* (L.), F. A. & H. SCHILDER 753.

*Mauritia arabica* (L.), *depressa* (Gray) *maculifera* Schild., *eglantina* Ducl. *mauritiana* (L.), F. A. & H. SCHILDER 753.

†*Megalocypraea somaliensis* sp. nov. Somaliland, F. A. SCHILDER, Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 116.

*Monetaria annulus* (L.), *moneta* (L.), F. A. & H. SCHILDER 753.

*Naria irrorata* (Gray), F. A. & H. SCHILDER 753.

†*Niveria apenninica* sp. nov. Geol. Mus. Parma (coll. Coccoconi), F. A. SCHILDER, Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 117.

*Palmadusta punctata* (L.), *asellus* (L.), *clandestina* (L.), *artuffeli* Jousc *gracilis* Gask., *fimbriata* (Gend.), *minoridens* Melv., F. A. & H. SCHILDER 753.

*Pedicularia pacifica* Pease, F. A. & H. SCHILDER, 753.

*Primovula coarctata* Ad. & Rve., F. A. & H. SCHILDER 753.

†*Primovula mariae* sp. nov. Providence, Cargados, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 118.

†*Protocypraea apenninica* sp. nov. Cenomanian M. d'Ocre (Mus. Torino), F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 117.

*Pseudocypraea adamsonii* Sow, F. A. & H. SCHILDER 753.

†*Pseudogisortia* monotype *benedicti* Vredenburg, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 118.

*Pustulariopsis* monotype *pustulifera* Parona, F. A. SCHILDER Arch. Molluskenk. Frankfurt a.M. 73 2-3 1941 p. 118.

*Simnia uniplicata* habits, A. G. HACKNEY 394.

*Staphylaea staphylaea* (L.), *limacina* (L.), *nucleus* (L.), F. A. & H. SCHILDER 753.

*Talparia talpa* (L.), F. A. & H. SCHILDER 753.

## TONNACEA.

*Bursa pustulosa jakib* var. nov. (= *Purpura* 13 Le Jakib Adanson p. 121 : pl. 3 f. 13), E. FISCHER-PIETTE J. Conchyliol. Paris 85 3 1942 p. 216 pl. vi f. 2.

†*Bursa* (*Bursa*) *koserbergae* nom. nov. for *Ranella margaritula*, Martin non Desk. = *subgranosa* Schep. non Beck = *nobelis* Tesch non Reeve C. O. v. R. ALTENA Overd. Leisch. Geol. Meded. Leiden 13 1 1942 p. 109 f. 4a, b, 5.

*Casmaria atlantica* from Cuba, M. L. JAUME 461.

†*Cassis* ? (*Mangkalia*) *martini* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbrouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 87 pl. 5 f. 187-192 (dgl. 193).

†*Charonia* (*Sassia*?) *menbrawitensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbrouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 pl. 5 f. 194-198.

†*Cymatium* (*Gutturium*) *bayeri* sp. nov. Kendeng Beds, East Java, C. O. v. R. ALTENA Owerd. Leidsche. Geol. Meded., Leiden, 13, 1 1942 p. 104 f. 2 a, b; †*C.* (*Ranularia*) *kugleri* sp. nov. Upper Miocene, Springvale, Trinidad R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 143 pl. ix f. 5.

*Ficus carotae* sp. nov. The Elbow Key, Largo, South Florida, W. J. CLENCH Johnsonia 18 Nov. 1945 p. 3 pl. 2; *F.* Protoconch differences *papyratia* (Say), *pilsbryi* (Smith), *mississippiensis* Conrad, *filia* Meyer, *decussata* Wood, *dussumieri* Valenc. *ficus* (Gmel.), figs., B. SMITH 789b.

†*Gyrineum jeffersonensis* pp. 117, 167 pl. 15 f. 16; *G. kincaidi* pp. 120, 168 pl. 15 f. 14 spp. nov. Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944.

*Mangkalia* subgen. nov. ? *Cassis*, type *Cassis*? *martini* sp. nov. [vide sub *Cassis*] Upper Miocene, Borneo, C. BEETS Verh. Geol. Mijnbrouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941.

†*Olequahia schencki* sp. nov. Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 116, 168 pl. 15 f. 15.

†*Phalium* (*Phalium*) *menkrawitense* sp. nov. Miocene, Borneo, C. BEETS

Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 85 pl. 4 f. 180-186.

†*Sconsia martini* **sp. nov.** Kendeng Beds, East Java, C. O. v. R. ALTENA Overs. Leidsche. Geol. Meded., Leiden 13 1 1942 p. 90 f. 1.

*Tonna* Brünnich 1772 application for placing on official list of Generic Names, R. WINCKWORTH 882.

Tritonidae types in Mus. Hist. nat. Paris, E. FISCHER-PIETTE & J. BEIG-BEDER 337.

#### PTENOGLLOSSA.

#### EPITONIACEA.

†*Epitonium caroli-martini* **sp. nov.** Kendeng Beds, East Java, C. O. v. R. ALTENA Overs. Leids. Geol. Meded., Leiden 12 1 1941 p. 28 f. 5 a-c, 7.

†*Melanella deroeveri* **sp. nov.** Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 274 pl. xxvii f. 51, 52.

†*Springvaleia* **gen. nov.** [Epitoniidae] type *Scalaria leroyi* Guppy 1867 (West Indies Tertiary), R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 133 pl. vii f. 1 a, b.

#### PYRAMIDELLACEA.

*Athleena burryi* (Stiliferidae) **gen. et sp. nov.** dredged 400 feet off Carysfort Reef Light, Florida, P. BARTSCH J. Wash. Acad. Sci. 36 1 1946 p. 30 text-fig.

*Chrysallida decussata* Mont., L. J. M. BUTOR 182.

†*Eulima colvallensis* **sp. nov.** = *E. gracillima* Edwards MS non Sow. Unique Latorian Middle Hendon Beds, Colwell Bay, I. of Wight p. 48 f. 3; *E. clarendonensis* **sp. nov.** = *E. similis* Edwards MS. non Orb. London Clay, Clarendon, p. 49 f. 4; *E. ferrovia* **sp. nov.** Hampstead railway tunnel, London Clay p. 49 f. 9; *E. venatrix* **sp. nov.** (Edwards MS.) Auversian Upper Bracklesham Beds, Huntingbridge p. 49 f. 6; *E. (Balcis) churchilli* **sp. nov.** Barton Beds, Barton p. 49 f. 7; *E. (Polygyreulima) susculata* **sp. nov.** (Edwards MS.) Auversian Upper Bracklesham Beds, Selsey p. 50 f. 8; *E. (Polygyreulima) convexinscula* **sp. nov.** (Edwards MS.) Lower Barton Beds, Barton p. 51 f. 10; *E. (Polygyreulima) sororcula* (Edwards MS.)

Lower Barton Beds, Barton, **sp. nov.** p. 52 f. 13, 14; *E. (S. C.) regalis* **sp. nov.** London Clay, Finchley, p. 54 f. 17; *E. (Polygyreulima) clausentina* **sp. nov.** Lutetian, Southampton Dock, p. 54 f. 18; *E. (Polygyreulima) sublabrosa* **sp. nov.** (Edwards MS.) Auversian Upper Bracklesham Beds, Selsey, p. 54 f. 19; Eocene England, A. WRIGLEY Proc. Malac. Soc. London 26 2-3 1944.

†*Niso subumbilicata* **sp. nov.** (Edwards MS.) Lower Barton Beds, Highcliffe, A. WRIGLEY Proc. Malac. Soc. London 26 2-3 p. 59 f. 24.

*Odostomia turgida* Charlesworth c. 1851 = *O. lirifera* Newton 1895, A. WRIGLEY Proc. Malac. Soc. London 26 2-3 1944 p. 61; *O. rissoides*, pigmentation, P. H. FISCHER 321.

†*Odostomia errikalensis* **sp. nov.** Sar-matian U.S.S.R., V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935 pp. 234, 382 pl. xxviii f. 48-51.

†*Pyramidella (Otopleura) vanuaensis* **sp. nov.** Vanua Mbalavu, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 357 pl. 50 f. N.

†*Rostreulima eocenica* **sp. nov.** London Clay, Newnham, Hants, unique, A. WRIGLEY Proc. Malac. Soc. London 26 2-3 1944 p. 55 f. 22.

†*Turbonilla (Peristichia) ? springvaleensis* **sp. nov.** Upper Miocene, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 137 fol. vi f. 6; *T. (? Mormula) amoenus borealis* **var. nov.** Tiefbohrung Baringen, Miocene, Holland, J. H. v. VOORTHUYSEN Med. Geol. Glichting. Geol. Burren Ned. Mijn. Heeslen C. 4 1, 5 1944 p. 38 pl. 13 f. 15-17.

#### STENOGLLOSSA.

#### (a) RHACHIOGLLOSSA.

#### MURICACEA.

*Bathymurex* **subgen. nov.** of *Murex*, type *Murex (Bathymurex) atlantis* **sp. nov.** Bahía de Cochinos, Cuba, W. S. CLENCH & I. P. FARFANTE Johnsonia No. 17 p. 41 1945.

†*Coralliophila renati-magnei* **sp. nov.** Stampian, Cretaceous, Astéris de la Souys, near Bordeaux, A. MAGNE J. Conchyliol. Paris 84 3 1941 p. 307 pl. 1 f. 1.

*Murex (Murex) woodringi* Jamaica p. 9 pl. 4 f. 1, 2; *M. (M.) aguayoi* off Punta Alegre, Cuba, p. 15 pl. 8 f. 1;



*ciboney* off Matanzas, Cuba, p. 20 pl. 10 f. 1, 2; *M. (Pterynotus) ariomus* off Hollywood, Florida, p. 39 pl. 20 f. 5, 6; *M. (Pteropurpura) bequaerti* off Delray, Palm Beach, Florida, p. 40 pl. 21 f. 1, 2; *M. (Bathymurex)* [q.v.] *atlantis* off Bahia des Cochinos, Santa Clara Province, Cuba, p. 41 pl. 21 f. 3-5; *Murex (Poirieria) burryi* off Fort Walton, Florida, p. 47 pl. 24 f. 1-3; *M. [(Murexsul)] carnicolor* off Barbados, Lesser Antilles, p. 48 pl. 25 f. 1-4; **spp. nov.** Western Atlantic, W. S. CLENCH & I. P. FARFANTE Johnsonia No. 17 May 1945; *Murex florifer arenarius* **subsp. nov.** = *Murex salleanus* auct. non A. Adams, Sanibel Island, W. J. CLENCH & I. P. FARFANTE Johnsonia 17 1945 p. 34 pl. 19 f. 1; *Murex (Murex) caillieti kugleri* **nom. nov.** = *Murex similis* Sow 1841 non Schroeter 1805, p. 19 pl. 9 f. 1, 2; *Murex (Chicoreus) argo* **nom. nov.** = *Murex imbricatus* Higgins & Marrat 1877, non Brocchi 1814, non Risso 1826, non Nardo 1847, p. 31 pl. 17, W. J. CLENCH & I. P. FARFANTE Johnsonia 17 May 1945; *Murex (Murex) cabritic* Bern, *tryoni* Hdg., *recurvirostros rubidus* F. C. Baker, *chrysostoma* Sow, *antillarum* Hinds, *beanii* Fischer & Bernardi, *caillieti* Petet, *motacilla* Gmel., *pulcher* A. Ad., *M. (Sisatus) senegalensis* Gmel., *M. (Phyllonotus) pomum* Gmel. *M. (Chicoreus) brevifrons* Lk., *florifer* Rve., *M. (Pterynotus) tristichus* Dall, *pygmaeus* Bush, *phaneus* Dall, *abyssicola* Crosse, *M. (Muricanthus) fulviseens* Sow, *M. (Poirieria) pazi* Crosse, *hystricinus* Dall, *M. (Murexsul) nuttingi* Dall, *M. (Favartia) macgintyi* Smith, *cellulosus* Conrad, *M. cellulosus nuculus* Mörch, *M. cellulosus leviculus* Dall, all figured, W. J. CLENCH & I. P. FARFANTE 227; *Murex (P.) pseudo-lamarcki* **sp. nov.** = *Murex lamarckii* Ben. non Grat., *M. (P.) lamarcki* Cossim., Peyr. (non Grat.) A. MAGNE J. Conchylol. Paris 84 4 1941 p. 374; *Murex trunculus* experiments, BONNET & JULLIEN 153; *M. trunculus, brandaris* gland extracts A. BONNET & A. JULLIEN 153; *Murex* in the Western Atlantic, W. J. CLENCH & I. P. FARFANTE 227; *M. trunculus* exudations, P. H. FISCHER 320; *Murex* types in Museum d'Histoire nat. Paris, E. FISCHER-PIETTE & J. BEIGBEDER 335; *Murex brandaris* chemical contents, JULLIEN, VINCENT & GEBAUT 487.

†*Murex (Phyllonotus) ardjunoi* p. 93 pl. 5 f. 201-204; *M. (Chicoreus)*

*juttingae* p. 95 pl. 5 f. 207-211; **spp. nov.** Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; *M. deshayesi elongatus* **var. nov.** p. 121 pl. 1 f. 1 a, b; *M. multivaricosus* **sp. nov.** p. 121 pl. 1 f. 2a, b, Upper Oligocene, Rumeln, V. FORGES Decheniana, Bonn 100A 1941; *M. (Pteropurpura) palensis* **sp. nov.** [nom. nov.] for *M. (P.) cf. tricarinatus* Cossmann non Link, *M. (P.) tripteroides* Douvillé non Link, A. MAGNE J. Conchylol. Paris 84 4 1941 p. 371.

*Murexiella* **subgen. nov.** of *Murex* type *Murex hidalgoi* Crosse, W. J. CLENCH & I. P. FARFANTE Johnsonia 17 1945 p. 49 pl. 26 f. 1-4.

*Purpura* types in Mus. Hist. nat. Paris, E. FISCHER-PIETTE & J. BEIGBEDER 337.

†*Purpura* (? *Tritonalia*) *capitoformis* **sp. nov.** Tiefbohrung, Maasbill, J. H. v. VOORTHUYSEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C 4 1, 5 1944 p. 73 pl. 6 f. 7, 8, 16.

*Thais floridana haysae* Clench, L. ST. AMANT 65.

*Tritonalia* (*Ocinebra*) *suga* **sp. nov.** = *La Suga* Adanson, Senegal, E. FISCHER-PIETTE J. de Conchylol. 85 2 1942 p. 229 pl. vii f. 9, 10.

*Tritonalia* types in Mus. Hist. nat. Paris, E. FISCHER-PIETTE & J. BEIGBEDER 336.

*Trophon* types in Mus. Hist. nat. Paris, E. FISCHER-PIETTE & J. BEIGBEDER 336.

*Typhis* types in Mus. Hist. nat. Paris, E. FISCHER-PIETTE & J. BEIGBEDER 336.

†*Urosalpinx coombsi* **sp. nov.** Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 118, 169 pl. 17 f. 3.

## BUCCINACEA.

*Akburunella* **gen. nov.** type *Akburunella akburunensis* Andries 271 388 pl. xxxii f. 1-3, V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935.

†*Anachis* (*Costoanachis*) *complicata* **sp. nov.** Maasbree, Holland, Miocene, J. H. v. VOORTHUYSEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C 4 1 5 1944 p. 82 pl. 9 f. 1-3.

†*Ancistrolepis clarki teglandae* subsp. nov. pp. 127, 177 pl. 17 f. 2; *A. packardii* sp. nov. pp. 115, 177 pl. 17 f. 4: Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944.

†*Brucarkia blakeleyensis* pl. 16 f. 12, 13, 17; *B. seattlensis* pl. 16 f. 15; *B. fulleri* pl. 16 f. 11, 14: spp. nov. Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 116, 173.

†*Buccinaria hoheneggeri* Kittl.; *B. orlaviensis* Kittl., C. BEETS 115.

*Buccinum humphreysianum euthriaeformis* var. nov. Gulf of Marseilles, M. PAULUS & P. MARS Bull. Mus. Hist. nat. Marseille 2 2 1942 p. 73 [description in foot note] pl. vi f. 2; *Buccinum canetae* sp. nov. off Habana, Cuba, W. S. CLENCH & C. G. AGUAYO Rev. Soc. Malac. Habana 2 2 p. 57 figs. [which are mere silhouettes]; *B. (Mada) humphreysianum* Bennett measurements, tables. M. PAULUS, FERME & D. SCHACHTER 636; *B. undatum*. W. SCHAFFER 743.

†*Bullia (Adinus) provecta* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942 p. 281 pl. xxviii f. 64-65; *B. (Dorsanum) subpolita laevis* var. nov. Baarloos p. 89 pl. 9 f. 15-17; *B. (D.) semiplicata* sp. nov. Maasbree Miocene, Holland p. 89 pl. 9 f. 18-21, J. H. v. VOORTHUYSEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C 4 1 5 1944.

*Busyon incile* (Conrad), *pyrum* Dillwyn, *excavatum* (Conrad), *contrarium* (Conrad), *coronatum* Conrad, figs. protoconchs; *B. contrarium*, *incile*, *pyrum*, *excavatum*, Protoconchs, B. SMITH 789b.

*Chauvetia* (= *Lachesis* = *Donovania*); on *Chauvetia candidissima* Philippi, E. LAMY 519.

*Columbella (Mitrella) triangulifera*, Maltz, *C. denticulata* Ducl., *C. molecularina* Ducl., E. FISCHER-PIETTE 329; *C. cribraria* Lk. geographical distribution, E. LAMY 518.

*Colus*, Protoconch differences, B. SMITH 789b.

*Eosipho*, C. BEETS 114.

*Fasciolaria apicina* Dall, *tulipa* (L.), *papillosa* Sow, Protoconchs, figs., B. SMITH 789b.

†*Fasciolaria (Fasciolaria) suryai* sp. nov. Miocene, Borneo, C. BEETS Verh.

Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 104 pl. 6 f. 217-220.

*Fusinus* further notes, A. G. SMITH 787.

†*Fusinus (Butonius) perinusitatus* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942 p. 284 pl. xxviii f. 70-72.

†*Fusinus limburgensis* sp. nov. Lower Oligocene, S. Limburg, J. C. H. ALBRECHT & W. VALK Med. Geol. Stichting, Maastricht C. 4 1 3 1943 p. 67 pl. 19 f. 713-720.

*Glyptothuria sculpturata* nom. nov. for *G. capensis* Tomlin 1932 non Thiele 1925 J. R. LE B. TOMLIN J. Conch. London 22 6 1945 p. 135.

*Latirus festivus* sp. nov. Miyeres Island, Yucatan, Mexico, F. HAAS Zool. Ser. Field Mus. N.H. Chicago 24 17 1941 p. 167 pl. 1.

†*Latirus (Latirulus) thoënsi* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942 p. 282 pl. xxviii f. 66-67.

†*Melongena margaritana* sp. nov. Juan Griego Margarita Island, Venezuela (Pleistocene), H. G. RICHARDS J. Paleont. Menasha, Wis. 17 1 1943 p. 120 figs. 1, 2.

*Molopophorus effingeri* [nom. nov. as of Durham vide list p. 118 but ref. given Weaver 1942, Univ. Wash. Pub. Geol. 5 465 pl. 90 f. 2, 3], J. W. DURHAM Univ. Calif. Pub. Geol. 23 5 1944 pp. 118, 170 pl. 18 f. 11;

†*Molopophorus lincolnensis weaveri* subsp. nov. Oligocene, N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 116, 170 pl. 15 f. 18.

*Mitrella* critical and descriptive notes, E. FISCHER-PIETTE 329.

*Morrisonella*, gen. nov. Buccinidae, type *Leucosyrinx? pacifica* Dall, 1569 fms. S.W. of Sitka, Alaska, P. BARTSCH Nautilus, Philad. 59 1 July 1945 p. 23 pl. 3 f. 11-14.

*Nassa verbeeki* Martin and *Nassa hirta* Kiener group affinities, R. ABRARD 9; *N. gibbosa*, L., P. H. FISCHER 324; *N. mutabilis*, L., M. ROTARIDES 729.

†*Nassa (Zeuxis?) tumida crassispinalis* var. nov. Baarloos, Holland, Miocene J. H. v. VOORTHUYSEN Med. Geol. Stichting Geol. Bureau Ned.

Mijn. Heerlen C 4 1, 5 1944 p. 90 pl. 10 f 1-7.

Nassidae types in Paris Museum, E. FISCHER-PIETTE & J. BEIGBETE 339.

†*Nassarius* (*Uzita*) *mangkalihatensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 101 pl. 9 f. 357-359.

*Neptunea* (*Ootomea*) *jonkeri* (Koperberg) distribution, H. (O.) *koperbergi* (Martin), C. BEETS 114.

†*Neptunea* (*Sipho*?) *altenai* p. 277 pl. xxviii f. 58-61; *N. (Eosipho) asphaltodes* p. 279 pl. xxviii f. 62-63; spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942; †*N. (Neptunea) fusiformis* sp. nov. Lower Miocene, Pil Section, pp. 60, 71 pl. xvii f. 4; *N. (N.) lirata sachalinensis* var. nov. Middle Miocene, Michigan Section, pp. 60, 72, pl. xvii f. 5, 6. Trans. Geol. Oil Trust, Moscow A103 1933.

*Ootoma*, C. BEETS 114.

†*Ootomella koperbergi* (Martin), *martini*, Koperb. *retifera* (Martin), figs., C. BEETS 115.

†*Peristernia martini* sp. nov. Miocene Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 103 pl. 5 f. 199-200.

†*Perse teglandae* sp. nov. p. 175; *P. pittsburgensis* sp. nov. p. 174 pl. 16 f. 2, 4; *P. olympicensis* sp. nov. p. xxx pl. 16 f. 1; *P. o. quimperensis* subsp. nov. p. 175 pl. 16 f. 5, 6; Oligocene N.-Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 p. 116.

†*Phos.* ? *springvaleensis* p. 149 pl. vii f. 7; *P. ? rohri* p. 150 pl. vii f. 5, 6; spp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943; *P. decussatus subcarinata* var. nov. Baarlo, Miocene, Holland, J. H. v. VOORTHUYSEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C 4 1, 5 1944 p. 85 pl. 7 f. 15-17.

*Plicifusus kröyeri*—protoconch, figs., B. SMITH 789b.

†*Polia dickersoni* sp. nov. Oligocene N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 118, 169 pl. 14 f. 19.

†*Pyrene* (*Strombina*) *duddeleyi* p. 145 pl. vii, f 2, 3; *P. (S.) cunningham-*

*craigi* p. 148, pl. iii f. 12 a, b; *P. (Eurypyrene) ? schideri* p. 148 pl. v 5 a, b, spp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943.

†*Searlesia olympicensis* sp. nov. Oligocene N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 118, 176 pl. 17 f. 9.

†*Siphonalia washingtonensis weaveri* subsp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 172 pl. 18 f. 6; *S. hadlockensis* sp. nov. pp. 120 171 pl. 15 f. 12; *S. washingtonensis weaveri* subsp. nov. pp. 120 172 pl. 18 f. 6; *S. teglandae* sp. nov. pp. 119, 172 pl. 15 f. 2; Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944.

†*Suessionia aequilineata* sp. nov. Eocene, Paris Basin, A. CHAVAN, J. Conchyliol, Paris 84 2 1941 p. 175 f. 9.

*Thatcheria* Angas, note on, C. BEETS 122.

*Triton* (*Molge*) *palnatus* Schneid., A. CH. HOLLAND 425.

*Tritonella* (*Ocinebrina*) *suga* (= *Purpura* 24, Le Suga, Adanson p. 132 pl. 8 f. 24), E. FISCHER-PIETTE, J. Conchyliol, Paris 85 3 1942 p. 229 pl. vii f. 9, & 10.

## VOLUTACEA.

†*Ancilla capeduncula*; *Ancilla* (*Ancilla*) *commendabile* spp. nov. Ceram S. E. Celebes Upper Oligocene, C. BEETS Leidsche Geol. Mededeel. 13 (1942) p. 348; *A. asphaltodes* p. 286, pl. xxiii f. 75, 76; *A. (A.) stupaeformis* p. 287 pl. xxviii f. 77-79; *A. (Ancillina) butonensis* p. 289 pl. xxviii f. 80-81 spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942; *A. [as Ancilla* p. 123] *blakeleyensis* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 p. 179 pl. 18 f. 8, 14.

*Athleta*, Protoconch differences of *petrosa* Conrad, *clagi* Smith, *sayana* Conrad figs., B. SMITH 789B.

†*Athleta* (*Volutocorbis*) *gandilloti* sp. nov. Eocene, Paris Basin, A. CHAVAN, J. Conchyliol, Paris 84 2 1941 p. 178 f. 10.

†*Butonina* gen. nov. Mitridae, type *Butonina nudata* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 290, 291 pl. xxviii f. 73-74.

†*Conomitra mauryae* sp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 158 pl. viii f. 8 a, b.

†*Cylindromitra asphaltodes* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942 p. 292 pl. xxix f. 82-83.

†*Lyria* (*Harpella*) *overmanae* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942 p. 294 pl. xxix f. 86-88; *L. jugosa spinusola* forma nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 121 pl. 6 f. 246, 255, 256.

*Marginella ambigua* Bav., E. FISCHER-PIETTE 524; *M. exilis* Gurelin [= Gmel?], *M. ambigua* Bavay. figs. E. FISCHER-PIETTE 327; *M. ambigua* Bav., E. FISCHER-PIETTE 330.

†*Marginella* (*Canalispira*?) *indrae* p. 122 pl. 7 f. 257-263; *M. (Volvarina?) berauensis* p. 123 pl. 6 f. 288-250 spp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; *M. (Serrata) teglandae* sp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 124, 178 pl. 17 f. 6, 10.

†*Mioplecton* *scowensis* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 121, 177 pl. 17 f. 15.

*Mitra cornicula* Risso 1826 = *Mitra ebenus* Lamk., E. FISCHER-PIETTE & J. BEGBEDER 340; *M. zonata* Marr. distribution in the Mediterranean, A. VATOVA 838A.

†*Mitra* (*Chrysame*) *ardjuno* p. 112 pl. 6 f. 232, 233; *M. (C.) bayeri* p. 112 pl. 9 f. 368-374; *M. (C.) mitrai* p. 114 pl. 6 f. 234-235, 245; *M. (C.) semari* p. 115 pl. 6 f. 236, 237; *M. (Cancilla) menkrawitensis* p. 116, pl. 6 f. 239-240; *M. (Cancilla) vanderwerkeri* p. 117 pl. 6 f. 241-244 spp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; *M. rhenana* sp. nov. Upper Oligocene Rumel, J.

GORGES Decheniana, Bonn 100A 1941 p. 137 pl. 1 f. 3, 4.

*Oliva reticularis pattersoni* subsp. nov. South Coast of Grand Bahama, W. J. CLENCH Mollusca Tavares Fla. 1 4 1945 p. 49 f. 1, 2; *O. reticularis pattersoni* figs., P. H. REED 698.

†*Oliva* (*Galeola*) *menkrawitensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 107 pl. 6 f. 221-226; †*O. woolnoughi lauwensis* sp. nov. [Miocene] island of Lakemba, Law, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 368 pl. 53 f. A, B.

*Oxynoe aguayoi* sp. nov. Shores Saimanitis at mouth of R. Québec prov. La Habana, M. L. JAUME Rev. Soc. Malac Habana 3 1 1945 p. 22 pl. 2 f. 6.

†*Pusia* (*Pusia*?) *ardjuno* p. 108 pl. 6 f. 227-229; *P. (Pusiolina) escheri* p. 109 pl. 9 f. 364-367; *P. (Pusiolina) menkrawitensis* p. 110 pl. 6 f. 230, 231 spp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941.

*Tudilla* (*Afer*) *bourcarti* sp. nov. Dar-bel-Humri Gentil coll. Sorbonne, A. CHAVAN Bull. Mus. Hist. nat. Paris p. 531 figs. p. 532.

Vasidae types in Paris Museum, E. FISCHER-PIETTE & J. BOIGBEDEY 339.

†*Vexillum* (*Vexillum*) *vavakuana* sp. nov. Miocene Vanua Mbalava, Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 367 pl. 52 f. W.

Volutidae types in Paris Museum, E. FISCHER-PIETTE & J. BOIGBEDEY 339.

#### STENOGLOSSA.

#### (B) TOXOGLOSSA.

#### CONACEA.

*Aforia diomedea* p. 389 f. 11, 12 off Yerimo Laki S.E. Hokkaido 309 fms.; *A. okhotskensis* p. 391 f. 1, 2 off E. Coast of Sakhalin island nr. C. Patience Okhotsk Sea, 73 fms.; *A. sakkalinensis* p. 392 f. 3, 4 off Kinka San Light, East of Sakhalin Island, 399 fms.; *A. chosenensis* p. 392 f. 9, 10, off Cape Clonard S.E. Coast of Chosen, Japan Sea, 122 fms.; spp. nov. all dredged by the "Albatross," P.



BAERTSCH I. Wash. Head. Sci. 35 12 1945; *A. japonica* Dall, *hondoana* Dall, *insignis* (Jeff.) figured, P. BARTSCH 98.

†*Aforia campbelli* sp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 121, 183 pl. 14 f. 4.

*Antiplanes profundicola* p. 57 549–585 fig. off Point Loma lighthouse; *A. diomedea* off Point Sur, California in 328 fms. p. 58: spp. nov., P. BARTSCH Proc. Biol. Soc. Washington 57 1944.

*Asprella tannaensis* sp. nov. Tanna New Hebrides, B. C. COTTON, Rec. S. Aust. Mus. Adelaide 8 2 1945 p. 270 pl. iv f. 3.

*Borsonella pinosensis* sp. nov. in 49–50 fms. off Point Pinos Light on mud and sand bottom, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 63.

†*Borsonia waibuia* sp. nov. Ceram S.E. Celebes, Upper Oligocene, C. BEETS Leidsche. Geol. Mededeel. 13 (1942) p. 348.

*Carinoturris* gen. nov. Turridae, type *Cryptogemma adrastia* Dall, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 60.

*Carinoturris fortis* sp. nov. in 298 fms. off Point Sur, California, P. BARTSCH Prov. Biol. Soc. Washington 57 1944 p. 60.

*Conella* Swainson (1840) genotype *Conus plicata* now placed under Columbellidae, B. C. COTTON 236.

Conidae in the South Australia Museum, B. C. COTTON 236.

†*Clavatula berauensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 127 pl. 7 f. 269–272; †*C. oostinghi* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 295 pl. xxix f. 89–90; †*C. (Knefastia) rossellac* sp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 124, 188 pl. 14 f. 11, 16.

†*Clavus (Crassispira) bravinderi* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 124, 181 pl. 14 f. 8, 9.

*Clinura* Bellardi, C. BEETS 122.

*Clinuromella* nom. nov. *Clinuropsis* Thiele 1931 not Vincent 1913 = *Anticlinura* Thiele 1934, C. BEETS.

†*Clinuropsis* Vincent, C. BEETS 122.

*Conus gloria-maris*, type specimen, A. F. BRUUN 171; *Conus* in Western Atlantic, W. S. CLENCH 222; *Conus imperialis* L. fig., P. M. REED 699; *C. adversarius* Conrad, Protoconch figs., B. SMITH 789B; *Conus*, Protoconch differences figs., B. SMITH 789B; *C. waccamawensis* (Smith) *floridanus* Gabb, *stearnsii* Conrad, *diluvianus* Green, protoconch figs., B. SMITH 789B.

†*Conus menkrawitensis* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 131 pl. 7 f. 275–281; †*C. australis vouensis* subsp. nov. Lakemba p. 369 pl. 53 f. D. E.; *C. yanuyaensis* sp. nov. Vanua Mbalava p. 369 pl. 53 f. F.; Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945.

†*Cythara (Cythara) savitiae* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 130 pl. 7 f. 282–283.

*Dauciconus* gen. nov. (Conidae) type *Conus daucus* Bruguière 1792, West Indies. B. C. COTTON Rec. S. Aust. Museum, Adelaide 8 2 1945 p. 246.

†*Drillia (Austrodrillia?) durgae* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 126 pl. 7 f. 267–268.

*Eucithara*, Protoconch differences, B. SMITH 989B.

*Floraconus singletoni* p. 263 f. 10 Victoria Western Port; *F. saundersi* Lencus Beach p. 264 f. 8 spp. nov. B. C. COTTON Rec. S. Aust. Mus. Adelaide 8 2 1945 pl. iv.

†*Gemmula bentsonae* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117, 184 pl. 14 f. 14–17.

†*Hemipleurotoma oostinghi* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 124, 181 pl. 14 f. 6.

*Hermes triggi* sp. nov. New Hebrides, B. C. COTTON Rec. S. Aust. Mus. Adelaide 8 2 1945 p. 267.

†*Irenosyrinx marroustonensis* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 121, 180 pl. 14 f. 5.

*Kurtzia* gen. nov. Turridae type *Mangilia arteaga* Dall & Bartsch 1910, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 64.

*Kurtzia gordonii* sp. nov. in 43-46 fms. on green mud bottom off Santa Cruz, California, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 65.

*Kurtzia* gen. nov. Turridae type *Mangilia* (*Kurtziella*) *beata* Dall., P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 64.

*Megasarcula grantii* sp. nov. (= ? 1906 *Pleurotoma* (*Genota*) *carpenteriana* Raymond Naut. 20 pl. f. 2 3) Monterey Bay, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 60.

†*Mirula* nom. nov. for *Terebella*, Palmer 1937 subg. of *Terebra* non Packard 1867, nec Maltzan 1886, nec Andreae 1887, K. V. W. PALMER J. Paleont. Menasha, Wis. 16 5 1942 p. 674.

†*Nekevis* (?) *scowensis* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 121, 185 pl. 14 f. 21.

*Ophioidermella* gen. nov. Turridae type *O. ophioderma* (Dall.) = *Pleurotoma inermis* Hinds 1844 not Partsch 1843, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 61.

*Ophioidermella montereyensis* sp. nov. Monterey Bay, P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 62.

*Pionoconus friggi* "sp. nov." [n. et f. p. 280 pl. iv f. 11], B. C. COTTON Rec. S. Aust. Mus. Adelaide 8 2 1945.

†*Priscofusius foxi* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 121, 181 pl. 17 f. 14.

*Propebela* (*Turritoma*) *diomedea* 581 fms. Monterey Bay p. 66; *P. (T.) profundicola* 871 fms. gray sand and rock off Point Pinos Light p. 67; *P. (T.) Smithi* 293-386 fms. off Point Pinos Light mud bottom p. 67; spp. nov., P. BARTSCH Proc. Biol. Soc. Washington 57 1944.

†*Pseudomelatoma fulleri* sp. nov. Oligocene, N. Western Washington,

U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 125, 181 pl. 14 f. 7.

†*Pseudotoma chaneyi* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 p. 185 pl. 14 f. 18.

†*Raphitoma nellensteyni* p. 299 pl. xxix f. 104-105; *R. verecunda* p. 300 pl. xxix f. 106, 107 spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942.

*Rectiplanis* gen. nov. Turridae type *Pleurotoma* (*Antiplanes*) *santarosana* Dall., P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 59.

*Rhodopetoma* gen. nov. Turridae type *Borsonella rhodope* Dall., P. BARTSCH Proc. Biol. Soc. Washington 57 1944 p. 59.

†*Spirotropis campi* sp. nov. Oligocene N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 p. 118; †*S. bainbridgensis* pp. 125, 182 pl. 14 f. 10; *S. campi* p. 182 pl. 14 f. 12; spp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944.

†*Suavodrillia hertleini* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 125, 182 pl. 14 f. 1.

†*Surculites* (*Clinura*) *biliminatus* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942 p. 296 pl. xxix f. 84-85.

*Terebra* (*Paraterebra*) *flammea* Lamarck distribution in Cuba, M. L. JAUME 460; *T. flammea* in Western Cuba, M. L. JAUME 460.

†*Terebra* (*Strioterebrum*) *ardjunoi* p. 141 pl. 7 f. 285, 288; *T. (S.) indrae* p. 141 pl. 7 f. 286, 289; *T. (S.) mangkahatendis* p. 143 pl. 7 f. 287, 290 spp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941; †*T. (Strioterebrum) brechincastrensis* sp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH Verh. naturf. Ges. Basel 54 1943 p. 172 pl. iv f. 9 a, b.

†*Turricula beanensis* p. 187 pl. 14 f. 2; *T. bremertonensis* p. 187 pl. 14 f. 3 spp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944.

†*Turris vandervlerki* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 128 pl. 7 f. 273-274.

*Virgiconus* gen. nov. Conidae, type *Conus virgo* L. 1758, B. C. COTTON Rec. S. Aust. Mus., Adelaide 8 2 1945 p. 253.

#### Opisthobranchiata.

#### BULLACEA.

†*Acteon* (*Acteon*) *graciliratus* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel 13 1942 p. 301 pl. xxix f. 91-93.

*Aglaja pilsbryi* Eliot and *Aglaja lineolata* H. & A. Adams anatomy, K. M. WHITE 875.

†*Bulla vitiensis* sp. nov. Vanua Mbalava Miocene Law, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 370 pl. 52 f. X; †*B. reseniensis* pp. 286, 391 pl. xxxiii f. 5-7; *B. urupensis* pp. 290, 391 pl. xxxiii f. 14-15; *B. sinzovi* pp. 290, 391 pl. xxxiii f. 20 spp. nov. Sarmatian, U.S.S.R., V. P. KOLESNIKOV Paleont, U.S.S.R. Acad. Sci. 10 2 1935; *Bulla eichwaldi* pp. 291, 391 pl. xxxiii f. 16-19; *B. enikalensis* pp. 295, 392 pl. xxxiii f. 36-39; *B. pseudourupensis* pp. 296, 392 pl. xxxiii f. 46-47; *B. intacta* pp. 298, 393 pl. xxxiii f. 34-35 spp. nov. Sarmatian, U.S.S.R., Paleont, U.S.S.R. Acad. Sci. 10 2 1935.

†*Cylichna butonensis* sp. nov. Upper Oligocene, East Indies C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 302 pl. xxix f. 94-97; †*C. (Cylichnella) durgae* sp. nov. Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 (1) 1941 p. 145 pl. 7 f. 291-293.

†*Ringicula clarki* sp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 125, 189 pl. 16, 3, 8; †*Ringicula parva* Charlesworth, A. WRIGLEY 892.

†*Scaphander stewarti* sp. nov. Oligocene, N. Western Washington, U.S.A. J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 116, 189 pl. 14 f. 15.

#### APLYSIACEA.

*Aphysia depilans* spermatogenesis, figs. O. TUZET 830.

*Dolabella* revision of genus, H. ENGEL 293.

#### Pteropoda.

Pteropoda, Pacific Coast, S. L. BAILY, JR., 86; Pteropoda larvae in the North Sea, G. T. D. HENDERSON & N. B. MARSHALL 415.

#### SPIRATELLACEA.

†*Cavolina limatura* p. 305 pl. xxix f. 117-119; *C. (Gamopleura) cranioides* p. 306 pl. xxix f. 120-123 spp. nov. Upper Oligocene, C. BEETS Leidsche. Geol. Mededeel 13 1942.

†*Clio asphaltodes* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 304 pl. xxix f. 101-103.

†*Diadra kipasiformis* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942 p. 304 pl. xxix f. 98-100.

*Spiratella planospira* sp. nov. 1280 metres water 49° 36' N. and 28° 54' W. about midway in straight line between England and C. Race, Newfoundland, H. A. REHDER Prof. Pap. U. S. Geol. Surv. 196 D 1942 p. 108 pl. 23 f. 5-7 (type not figured).

#### CONULARIACEA.

*Archaeoconularia* Boucek 1939 genotype *A. insignis* (Barrand 1867) raised to full generic rank, European species listed, G. W. SINCLAIR 781.

†*Archaeoconularia attenuata* p. 88 pl. 1 f. 1, 2 Rochester Shale (Silurian) Grimsby, Ontario; *A. membranacea* p. 89 pl. 1 f. 3, 4 Rochester Shale, Middleport, New York; spp. nov., G. W. SINCLAIR Trans. roy. Soc. Can. (3) 38 4 1944.

†*Eoconularia amoena* "Black River, Tetreauville" ? Ottawa Limestone (Trenton age) p. 92 pl. 1 f. 7, 8; *E. ? humberia* Weston, Ontario, Upper Ordovician p. 92 pl. 1 f. 6; spp. nov. G. W. SINCLAIR Trans. roy. Soc. Can. (3) 38 4 1944.

†*Hyolithes textor* sp. nov. Upper Cambrian, Andalusia, R. & E. RICHTER Abh. senckenb. naturf. Ges. 450 1940 p. 50 pl. 4 f. 77-78; *Hyolithes*, Cambrian fossils, F. RUSETTI 692.

†*Palaenigma* Walcott 1886 a name proposed for *Tetradium* Schmidt, G. W. SINCLAIR 781.

## Nudibranchiata.

## ELYSIACEA.

*Alderia modesta*, H. ENGEL. S. J. GEERTS & C. O. V. R. ALTENA 294.

*Limapontia depressa* Ald. & Hall. H. ENGEL. S. J. GEERTS & C. O. V. R. ALTENA 294.

## PLEUROBRANCHACEA.

*Umbraculum plicatum* Marts. fig., H. SARASENA 739.

## DORIDACEA.

*Adalaria derjugini* sp. nov. Japan Sea near the Tokarewsky signal-tower, N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1 1941 pp. 53, 62 pl. 1 f. 1 pl. 2 f. 1.

*Bermudella* gen. nov. Polyceridae type *Polycera zoobotryon* Smallwood, H. H. ODHNER Kgl. Vetensk. villerk.-samk. Handl. 6 B 1. 11.

*Boreodoris setidene* gen. et sp. nov. Norway, N. H. ODHNER, Kgl. Norske Vidensk. Gelsk. Spr. 1939 (1940) 1 p. 1 (non vidi).

*Lamelldoris beringi* sp. nov. Bering Island pp. 54, 63 pl. 1 f. 2 pl. ii f. 2; *L. spiculoides* pp. 55-63 pl. 1 f. 3 pl. ii f. 3 near Bering Island; spp. nov. N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1 1941.

*Polycera* (*Greilada*) *messinensis* sp. nov.; *P. risbeci* nom. nov. for *P. lessoni* Risbec 1928 non Orb. 1837, N. H. ODHNER Kgl. Vetensk. Vitterh.-samk. Handl. 6 B 1. 11.

*Triopa pacifica* p. 55 pl. 1 f. 4 pl. ii f. 4, Japan Sea near Petrov Island; *T. camtschatica* p. 56 pl. i f. 5 pl. ii f. 5, near Cape of Africa (Kamtschatka) spp. nov., N. J. VOLODCHENKO Invest. Far E. Seas U.S.S.R., Moscow 1 1941 p. 64.

## AEOLIDIACEA.

*Aeolis grandis* E. of Petropavlovsk, Kamtschatka on sand and mud 450-1,000 m. p. 58, 66 pl. iii f. 1 pl. iv f. 4; *A. camtschatica* near Kamtschatka p. 59, 67 pl. iii f. 6; pl. iv f. 6; *A. longibranchus* Japan Sea p. 59, 67 pl. iii f. 5 pl. iv f. 6 spp. nov., N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1 1941.

*Berghia norvegica* sp. nov. Norway, N. K. ODHNER Kgl. Norske Vid. Gelsk. Skr. 1939 (1940) 1 p. 141 (non vidi).

*Coryphella japonica* Japan Sea pp. 57-65 pl. iii f. 3 pl. iv f. 1; *C. orientalis* Japan Sea near Tokarevsky signal sta. pp. 57, 66 pl. iii f. 2 pl. iv f. 2 spp. nov. N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1941.

*Cratena rubra* Japan Sea, Petrokia Bay, sp. nov., N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1 1941 p. 67 pl. iii f. 4 pl. iv f. 3.

*Dirona pellucida* sp. nov. De Castries Bay on *Cystophyllum*, on the stones 4-8 m. deep, N. I. VOLODCHENKO Invest. Far E. Seas U.S.S.R. Moscow 1 1941 pp. 56, 65 pl. i f. 6 pl. ii f. 6.

## ELLOBIACEA.

†*Persa olympicensis quimperensis* subsp. nov. Oligocene, N. Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 p. 119.

*Zospeum globosum*, C. PIERSANTI 657.

## AMPHIBOLACEA.

*Amphibola avellana* (Brug.) figs. anatomy. B. HUBENDICK 439.

*Salinator fragilis* Lk. and *S. solida* Mart. distinct species in Australia, L. WOLLACOTT 888; *Salinator fragilis* (Lk.) figs. anatomy, B. HUBENDICK 439.

*Stenacme floridana* gen. et sp. nov. Amphibolidae, Biscayne Bay, Miami, Florida, H. A. PILSBRY Nautilus, Philad. 58 4 Ap. 1945 pp. 112-114 pl. 5.

## LYMNAEACEA.

*Ancylastrum fluviatile* Mull. var. Loire, P. CALAS 185.

*Angulorbis* gen. nov. Planorbidae, genotype *Planorbis loryi* Coquand Mem. Soc. Emulation Doubs (2) 7 107 t. 5 f. 8-11, W. WENZ Archiv Moll. 73 5-6 1941 p. 221.

*Anisus* (*Gyraulus*) *lenzi* sp. nov. Rio Sao Francisco, Pernambuco, W. S. S. v. R. Jutting Arch. Hydrobiol. Stuttgart 39 3 1943 p. 480 f. 3 c and d.

*Australorbis camerunensis* sp. nov. Mougouge, High Plateau, N.W. Cameroons, C. R. BOETTGER Archiv f. Mollusk. 73 2/3 1941 p. 121 text-figs. *Australorbis centimetralis* control experiments with slaked lime and copper sulphate, G. JENSEN 468; *Australorbis glabratus* (Say) figs. p. 285; *Austral-*



orbis and *Schistosoma*, C. PINTO & A. F. DE ALMADA 669.

†*Carinorbis* gen. nov. Planorbidae type *C. planospiralis* sp. nov. Paleocene, Sheridan Co., Wyoming, T. C. YEN Amer. J. Sci. New Haven 244 1 p. 46 pl. 1 f. 6 a-c.

*Helisoma anceps anticostianum* p. 219 pl. 96 f. 18-22, English Bay, Anticosti Island, Quebec, Canada; *H. a. bartschi* p. 219 pl. 83 f. 19-22, Brook of Great Falls, Virginia; *H. a. idahoense* p. 220 pl. 84 f. 26-28, pl. 101 f. 11, 12, Pend Oreille River, Sand Point, Idaho; *H. a. politum* p. 221 pl. 83 f. 16-18, Honeywell Creek, Carleton Co., Ontario, Canada; *H. binneyi randolphi* p. 221 pl. 94 f. 1-8, Lake Washington, Seattle, Washington; *H. caribaeum cubense* p. 222 pl. 119 f. 22-25, Zapata Swamp, Cuba; *H. pilsbryi preblei* p. 224 pl. 91 f. 6-8; *H. subcrenatum perdisjunctum* p. 224 pl. 96 f. 13-17 Yellowstone Lake, Wyoming; *H. trivolvis marshalli* p. 225 pl. 87 f. 11-15; *H. campanulatum dalli* p. 226 pl. 111 f. 12, 13, 15, 16, Anticosti I., Quebec, Canada; *H. campanulatum pleistocenicum* p. 226 pl. 110 f. 21-26; *H. c. rideauensi* p. 227 pl. 109 f. 21-24, Rideau R., Ottawa, Canada; vars. nov., F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945; *Helisoma columbiense* p. 222 pl. 119 f. 16-21, Lac La Hache, Cariboo District, British Columbia; *H. kennicotti* p. 223 pl. 89 f. 13-17, Lake Isle la Crosse, English River, Canada; spp. nov., F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945; *Helisoma* and *Schistosomiasis*, W. C. GREGG 385; *Helisoma* (*Taphius*) *nigricans* Spix experimental, W. KEMPENDORFF 493.

*Lateorbis* subgen. nov. of *Tropicorbis* Pils. & Brown 1914 type *Planorbis pallidus* C. B. Adams, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 85.

†*Limnaea* (*Stagnicola*) *hordlensis* sp. nov. = *L. elongata* S. V. Wood 1877, non de Serres 1844, P. JODOT C. R. Séances Soc. géol. Fr. 1942 14-15 p. 175 [vide *Limnaea*].

*Limnaea stagnalis* (L.), L. J. M. BUTOT 185; *L. limosa*, radula, B. HUBENDICK 438; *L. ovata* (Drap.) variation figs., J. G. J. KUIPER 511; *L.* revision of species, L. A. LHOSTE 554; *L. stagnalis* variation, Halle district, figs., E. MENNER 586; *L. stagnalis* experiments on eggs of, C. P. RAVEN &

L. H. BRETSCHNEIDER 693; *L. peregrina* Müll sinistral, W. THURGOOD 821; *L. stagnalis* and *Schistosoma* effects on human skin, R. G. WASHBURN 862.

†*Limnaea sagensis* sp. nov. Lower Cretaceous, Sage Creek, Wyoming, T. C. YEN *Notulae Naturae Philad.* 166 1946 p. 12 f. 12.

Limnaeidae of Isle of Wight (Bookham Common), J. L. HARRISON 402.

*Menetus cooperi planospirius* var. nov. Orecos Island, Puget Sound, Washington p. 231 pl. 122 f. 3-6; *M. dalli* sp. nov. p. 231 pl. 140 f. 22-24; F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945; *Menetus coloradoensis* sp. nov. Swamp at head of Eldora Lake, near Eldora, Colorado p. 230 pl. 122 f. 23-25; *M. cooperi crassilabris* Seattle, Washington p. 230 pl. 121 f. 19-21, pl. 122 f. 13, pl. 123 f. 26 var. nov., F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945.

*Micromenetus* subgen. nov. of *Menetus* H. & A. Ad. 1855 type *Planorbis dilatatus* Gould, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 187.

*Nautilinus* not Planorbidae p. 202, F. C. BAKER 90.

*Parapholux effusa dalli* Klamath Falls, Oregon p. 227 pl. 115 f. 27-30; *P. klamathensis sinitsini* Berkeley Spring, 14 m. north of Klamath Falls, Oregon p. 228 pl. 123 f. 2-10; vars. nov.: *P. pusilla* sp. nov. 6 m. west of Pyramid Lake, Washoe County, Nevada, p. 229 pl. 117 f. 1-6, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945.

*Pingiella* gen. nov. Segmentininae Planorbidae type *Pyramidula* (*Patula*) *peipinensis* Ping and Yen 'wrongly interpreted as a landshell,' F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 109.

*Planorbis* (*Gyraulus*) *dorri* nom. nov. = *coretus* Dautz. 1890 Min. Soc. Zool. Fr. p. 132 pl. 1 f. 9: non Desh. 1838, F. FISCHER-PIETTE J. de Conch. 85 2 1942 pp. 131, 132; *Palaeorbis* Ben. & Coem. 1867 not Planorbidae p. 202, F. C. BAKER 90; *P. (Coretus) corneus* L. albinism, R. BALLAND 93; *P. (Hippeutis) hemistoma* Sow., *fontanus* L., *complanatus* L., L. J. LHOSTE 555; *P. corneus* in Herts, L. W. STRATTON 812.

†*Planorbis (Hippeutis) headonensis* sp. nov. = *Pl. lens* F. E. EDWARDS 1852 non Brong 1810, R. JODOT C. R. Séances Soc. Géol. Fr. 1942 14-15 p. 178; †*P.* Pleistocene fossils Velzen, figs., ALTENA & KUPER 64.

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*Planorbula smithii* sp. nov. Jackson Co., Alabama, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 229 pl. 118 f. 11-12, pl. 119 f. 10-12.

*Plesiophysa ornate* (Haas) fig., W. S. S. v. B. JUTTING 483.

*Physa mosambiquensis* Clessin and *P. waterloti* are conspecific, M. CONNOLLY 232.

*Radix pereger melanopsiformis forma* nov. Sechenbergen, H. WAGNER Fragm. faun. hung. 5 (2) 1942 pp. 1-6; *Radix auricularia* (L.) in Vermont, R. T. JOHNSON 476.

Segmentininae subfam. nov. type genus *Segmentina* Fleming, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 96.

*Tropicorbis ohimeki* sp. nov. Ometope, Nicaragua, F. C. BAKER "The Molluscan Family Planorbidae," Urbana 1945 p. 218 pl. 134 f. 12-14, 28; *T. havanensis* and *Schistosoma*, C. G. AGUAYO 46.

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*Agardhia truncatella* Pfr. biological problems, J. PETRBOK 654.

†*Cerastus (Petracoceras) candidus* (Lk.), *labialis* (O. F. Müll.) in Hadramaut deposits, S. Arabia, W. WENZ 870.

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†*Ena montana* (Drap.) new record as fossil and not known living in Essex, A. S. KENNARD 494.

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*Imparietula blanda lycia* subsp. nov. Turkey, Arelalya, L. FORCART Archiv f. Mollusk. 74 5-6 1942 p. 241 text-fig. 2; *I. wissmanni* sp. nov. Wadi Mahredün, N. Djöl, Hadramaut, W. WENZ Archiv f. Mollusk 75 2-3 1943 p. 150, figs.

*Iphigena plicatula* (Drap.), *I. lineolata* Held., F. E. LOOSJES 560; *I. rolpheii*, T. FITZ 670.

*Jaminia parreyssi lehari* subsp. nov. Limassol, Cyprus, W. WALLNER Archiv f. Mollusk. 75 2-3 1943 p. 131 figs. 1-3.

*Laciniaria plicata* Drap. Le Saunces, W. BLUME 140; *L. plicata*, W. BLUME 141; *L. biplicata* (Mont.), F. E. LOOSJES 560.

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*Orcula multidentata* sp. nov. Wadi Cuf p. 188 f. 1; *O. diana* Wadi Bu Naga p. 189 f. 2; *O. striata* Wadi el Gattara p. 190 f. 3; *O. tripolitana* Tripolitania p. 192 f. 5 spp. nov. Lybia, *O. striata elongata* subsp. nov. Wadi Bu Naga, Lybia p. 191 f. 4, F. KALTENBACH Archiv f. Mollusk 75 2-3 1943.

*Pagodulina pagodula superstes* Klemm fig., W. KLEMM 499.

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*Pupilla sterri* Voith 1838 *muscorum* (L.); figs., W. ADAM 24; *Pupilla sterri*, T. FITZ 670.

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*Reinia* (*Proreinia*) *eastlakeana* Mochendorff 1882) fig. of Lectotype, A. ZILCH 901.

*Sterkia antillarum* Pils. notes, C. G. AGUAYO 39.

*Strobilops hubbardi*—note, C. G. AGUAYO 38.

*Truncatellina arcensis* sp. nov. Arc-sur-Cure, Dep. Yonne, W. KLEMM Archiv f. Mollusk 75 2-3 1943 p. 100 text-fig.; *Truncatellina strobili* (Gred.) fig., W. ADAM 24.

†*Truncatellina suprapontica* sp. nov. Upper Pontian, Vienna, W. WENZ & M. & A. EDLAUER Archiv f. Mollusk. 74 2-3 1942 p. 88 pl. 4 f. 8.

*Vertigo substriata* (Jeff.) figs., W. ADAM 24; *V. moulinsiana* Dupuy 1849 figs., W. ADAM 25.

†*Vertigo pusilla* Mull., *substriata* (Jeff.), *concinna* (Scott), *moulinsiana* Dupuy, *alpertris* Alder, *angustior* Jeff. not known living in Essex and \* is a new record as fossil in the county, A. S. KENNARD 494; †*V. (Vertigo) pusilla modlingensis* subsp. nov. Eickhög, nr. Modling, Vienna, Upper Pontian, W. WENZ & M. & A. EDLAUER Archiv f. Mollusk. 74 2-3 1942 p. 89 pl. 4 f. 9; *V. (Vertigo) ronneyensis* Necste, E. & L. HASSELEIN 404.

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*Rumina decollata* method of egg laying, P. H. FISCHER 322.

*Subulina* (*Nothapalus*) *pancispira mukongo* subsp. nov. Luadi-Goyo, near Matadi, Belgian Congo, J. C. BECQUAERT & W. J. CLENCH Mus. Comp. Zool. Harvard 88 1 1941 p. 11 pl. 2 f. 6-8.

†*Zootecus insularis adenensis* (L. Pf.) in deposits, Hadramaut, S. Arabia, W. WENZ 870.

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*Encobresia diaphana* (Drap.), *E. nivalis* (Dum. & Mort.), *E. pegorarii* (Poll.), L. FORCART 355.

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*Oligolimax annularis* (Stud), L. FORCART 355.

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*Sculptaria edingeri* Connolly 1938 = *S. namaquensis*, A. ZILCH 902.

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*Liguus fasciatus austinianus* p. 27 pl. 4 f. 1, 2; *L. f. josefae* p. 29 pl. 4 f. 3, 4; *L. crenatus luteolozonatus* p. 30. pl. 4 f. 5, 6; *L. f. sanctispiritusensis* p. 31 pl. 4 f. 7-10 subsp. nov. Cuba, R. P. GUITART Rev. Soc. malac. Carlos de la

Torre Habana 3 1 1945; *Liguus fasciatus austinianus* p. 27 pl. 4 f. 1, 2; *L. fasciatus josefae* p. 27 pl. 4 f. 2, 3; *L. crenatus luteolozonatus* subsp. nov. p. 30 pl. 4 f. 5, 6; *L. fasciatus sanctispiritusensis* subsp. nov. p. 31 pl. 4 f. 7-10, A. P. GUITART Rev. Soc. malac. Habana 3 1 1945; *Liguus fasciatus sanchezi* Lonca de Ponce, pasado el rio Caburni Trinidad p. 11 pl. 3 f. 3; *L. f. tigræ* Monte de Lewis, San Juan, Cienfuegos p. 12 pl. 3 f. 1; *L. f. multilineatus* Monte del Tarabico, Hayo de Padilla, Cienfuegos p. 13 pl. 3 f. 3; subsp. nov. O. A. LEDON Rev. Soc. malac. Habana 2 1 1944; *Liguus blainianus fairchildi* Clench in Camagüey, C. G. AGUAYO 43; *Liguus fasciatus ahalinus* (Clench varieties, R. G. CASTANEDA 192.

*Malinchea* nom. nov. for *Tristemma* Bartsch Pr. U.S. Nat. Mus. 31 133 1906 (not *Tristemma* Brandt Prod. Anim. Mertins 1 15 1835); *Malinchea arellanoï* p. 94 f. 5; *M. politecnicae* p. 94 f. 4; *M. quaritaroensis* p. 94 f. 3 spp. nov. N.W. of Pladereyta, Querétaro, Mexico, P. BARTSCH J. Wash. Acad. Sci. 35 3 1945.

*Orthalicus* Beck 'Buccinum' *zebra* Müller type, H. A. REHDY 703.

*Partula gibba* Fér., T. HALTENORTH & S. JAECKEL 399.

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*Campylaea* (Faustina) *faustina* charpentieri Geholtz, E. & L. HASSLEIN 404.

†*Candidula radigueli* Bgt. = *crayfordensis* figs. p. 157, A. S. KENNARD 495.

*Cepaea nemoralis* of Brighton, Monroe Co., N.Y., C. L. BLAKESLEE 137; *C. nemoralis* L. two local forms, A. COMFORT 231; *C. nemoralis* (L.), W. C. v. HEURN 421; *C. nemoralis*—population, W. C. v. HEURN 422; *C. nemoralis* in Rhode Island, E. G. MATTESON 583; *C. nemoralis* L., a large form from Tipperary, A. W. STELFOX 801; *C. nemoralis* in the Dartry Mountains, A. W. STELFOX 802.

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*Exiliberus jacksoni* Iredale is an absolute synonym of *Eremina zitteli* Bttg., M. CONNOLLY 232.

*Fruticicola striolata suberacea* Ch., V. F. HIARAC 423.

†*Fruticicola fruticum* (Mull.) fig., A. S. KENNARD 495.

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*Helicigona byshekensis* sp. nov. Bysheh, Elbasan, Albania, H. KNIPPER Archiv f. Mollusk. 73 5-6 1941 p. 181 pl. 11 f. 1 a-c; *Helicigona lapicida* in the Netherlands, A. D. S. MEUSE & W. VERWORT 584; *H. pomatia* a giant form, J. PETRBOK 655; *H. lapicida* (L.) in the Netherlands, W. VERVOORT 844.

*Helix aspersa* Müll. phases of croissance, J. DEFAYE; *H. aspersa* hermaphrodite gland, P. H. FISCHER 318; *H. pomatia* effect of barometric changes on respiration, tables, P. H. FISCHER 319; *H. pomatia* action of Potassium, R. HAZARD 407; action of Sodium, R. HAZARD 408; *H. pomatia* protoplasm, A. C. HOLLANDE 425; *H. pomatia* kinematics of locomotion, H. W. LÉSSMANN 559; *H. pomatia* heart action, H. MISLIN 591; *H. lucorum castanea* Olivier figs., J. PETRBOK 651; *H. pomatia* Battic districts, H. SCHLESCH 762; *H. aspersa* inclusions

in growing oocyte cells, J. A. SERBA & A. A. LOPEZ 777; *H. aspersa* a sinistral adult, St. Leonards-on-Sea, J. R. leB. TOMLIN 825; *H. pomatia* and manganese, VINCENT & JULLIEN 846.

†*Helix (Helix) lucorum supralevantina* subsp. nov. Velea Budureasca, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 87 pl. 32 f. 486-487.

†*Hodopoeus crassus* gen. et sp. nov. Eocene or Paleocene? New Mexico or Texas? H. A. PILSBRY & T. D. A. COCKERELL Nautilus, Philad. 58 4 Ap. 1945 p. 117 pl. 6 f. 1, 2.

Leucochroidae of the Locard Collection, G. CHERBONNIER 213.

*Micrarionta orocopia* Willett, figs., T. D. A. COCKERELL 229.

*Pleurodonte (Dendrocochlis) aspera* Fér., H. WAGNER 857.

*Tachea* of Bohemia, J. PETRBOK 652.

*Zachrysia lamellicosta freirei* susp. nov. p. 96 pl. 9 f. 1-3; *Z. scabrosa* Poey "nomen conservandum" p. 97, C. G. AGUAYO & M. L. JARME Rev. soc. malac. Habana 3 3 1945.

*Zenobiella (Monachoides) incarnata* (Müll.) in Hagengebirge, F. MAHLER 597.

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*Ennea acicula* Morelet and Raffraya mahéensis Conn. conspecific, M. CONNOLLY 232.

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†*Dentalium (Dentalium) asphaltodes* p. 307 pl. xxix f. 110-112; *D. (D.) waisinense* p. 307 pl. xxix f. 113-116 spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. Geol. Mededeel. 13 1942.

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†*Fuchsella* gen. nov. Grammysiidae, genotype *Sphenotus mailliensci* Asselberghs, G. DAHMER Senckenbergiana Frankfurt 25 1-3 1942 p.p 134, 145

f. 32, 33; *Fuchsella maillieusci* Asselt. figs. N.W. Eifel, G. DAHMER 244.

†*Prothyris* (*Plicoprothyris*) *ovata* sp. nov. Lower Devonian, G. DAHMER. Senckenbergiana Frankfurt 22 1-2 1940 p. 95 f. 16.

†*Solenopsis schmidtii* sp. nov. [nom. nov.] for *Sphenotus soleniformis* Maurer non Goldfuss, G. DAHMER Senckenbergiana Frankfurt 22 3-4 1940 p. 150 f. 11.

### NUCULACEA.

†*Acila* (*Truncacila*) *princeps* sp. nov. Merced County, California, Charleston School quadrangle, Moreno formation, Upper Cretaceous, H. G. SCHENCK J. Paleont. Menasha, Wis. 17 1 1943 p. 63 pl. 8 f. 1-4, 6-8.

†*Borissia* gen. nov. of *Nuculana* with types *N. (B.) alferovi* sp. nov. Miocene? West Kamchatka p. 79 text-fig 4, vide etiam sub *Nuculana*, W. S. SLODKEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 1938.

†*Tenodonta* (*Palaeoneilo*) *reulingi* sp. nov. Devonian, Richtschnitt Wetteldorf, G. DAHMER Senckenbergiana Frankfurt 26 5 1943 p. 381 pl. 8 f. 94a, b, 95.

†*Glyptoleda* gen. nov. pp. 293, 298 of Nuculanidae, genotype *Glyptoleda reidi* sp. nov. pp. 294, 299 pl. xix f. 1-5, Southern Plunge of the Serecold Structure, 2.19 miles N. 265° E. of Ingelara Station, Springcure District, Queensland, H. O. FLETCHER Rec. Aust. Mus. 21 6 1945.

*Glyptoleda glomerata* pp. 294, 300 pl. xx, f. 1-3 loc. as genotype; *G. coleyi* pp. 294, 301 pl. xix f. 7-9 Barrabiddy Creek, 19 chains upstream from the fence between Weir and Barrabiddy Paddocks, H. O. FLETCHER Rec. Aust. Mus. Sydney 21 6 1945.

†*Ledella austrina* p. 308 pl. xxx f. 130-131, *L. propecta* p. 309 pl. xxx f. 128-129; spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942.

†*Limopsis butonensis* p. 311 pl. xxx f. 139-142; *L. waisinensis* p. 312 pl. xxx f. 132-135; spp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942.

*Malletia gigantea* (Smith), E. STOLL 810.

†*Nucula luna* sp. nov. Devonian, Richtschnitt Wetteldorf, G. DAHMER Senckenbergiana Frankfurt 26 5 1943 p. 376 pl. 8 f. 79 a-c, 80; †*N. fuchsi* nom. nov. for *N. decipiens* A. Fuchs 1915, G. DAHMER Senckenbergiana Frankfurt 25 4-6 1942 p. 278 figs. 12-14.

†*Nuculana undulostriata* sp. nov. = *Nuculana waterhousei* Etheridge, (?) var. Fossil Head, Treachery Bay, Northern Australia, whereabouts of Holotype unknown, H. O. FLETCHER, Rec. Aust. Mus. Sydney 21 6 1945 pp. 294, 309; †*N. (Nuculana?) kavranensis* pp. 65, 83 pl. vii f. 19, 20, care in Kavran series of Kamchatka; *N. (Sacella) kamschatka* pp. 71, 85 pl. vii f. 23a, Eastern coast of Kamchatka, Miocene (?); *N. (Borissia) alferovi* pp. 79, 86 pl. viii f. 22, a; 23, a; Eastern coast of Kamchatka; spp. nov. W. S. SLODKEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938.

†*Pseudoletops* subgen. nov. of *Ledopsis* Beushausen 1884, for *Ledopsis (Pseudoletops) taussica arduennensis* var. nov. Siegenian, Lower Devonian, Couvin Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 18, 182.

†*Yoldia blakeleyensis* sp. nov. Oligocene, N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 122, 135 pl. 13 f. 12; †*Y. altisicssurata* Pil. section, Lower Miocene pp. 33, 66 pl. iv f. 8, 9; *Y. subscapha* Nur section, Lower Middle Miocene pp. 35, 66 pl. v f. 5; *Y. multidentata* Pil. section, Lower Miocene pp. 37, 67 pl. v f. 13, 14; *Y. subtukunagui* Nur section, Lower Middle Miocene pp. 38, 67 pl. vi f. 1-3: spp. nov. Tertiary of the Schmidt Peninsula, Sakalin Island, I. P. KHOMENKO Trans. Geol. Oil Trust, Moscow A.103 1938; †*Y. pilvoensis* Schmidt Peninsula pp. (112), 97 pl. iv f. 14, 15 Upper Oligocene? — Upper Miocene; sp. nov. W. S. SLODKEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938.

### FILIBRANCHIATA.

### ARCACEA.

†*Anadara callicestosa coilsoni* subsp. nov. Miocene, Frank Witton's Marlpit in Magnolia K.C. p. 24 pl. 3 f. 8, 9, 12; *A. magnoliiana* Gardner Miocene Natural Well, Magnolia Duplin Co. p. 25 pl. 3 f. 1, 4, 5, 7, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943.

†*Arca* (*Barbatia*) *soostinghi* p. 149 pl. 8 f. 301–303 pl. 9 f. 377–379; *Arca* (*Arcopsis* *mankradoitensis*) p. 151 pl. 8 f. 304–308 pl. 9 f. 375–376; *Arca* (*Arca*) *manghalikatensis* p. 154 pl. 8 f. 311–312 pl. 9 f. 380–382, **spp. nov.** Miocene, Borneo, C. BEETS Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 1 1941; †*A.* (*Bentharca*) *asphaltodes* p. 309 pl. xxx f. 136–138; *A.* (*Bathyarca*) *perinusitata* p. 310 pl. xxx f. 124–127 **spp. nov.** Upper Oligocene, C. BEETS Leidsche. Geol. Mededeel 13 1942; †*A.* (*Arca*) *diluvi latecostata* **var. nov.** Middle Miocene, Peelgetrite, Holland, E. IJSPEERT Med. Geol. Stichting, Maastricht C4 1 1 1942 pp. 4 43 pl. 2 f. 2.

*Glycymeris* muscle scars, A. CHAVAN 204.

†*Glycymeris* (*Tucetona*) *colossea* **sp. nov.** Blainville (Manche), A. CHAVAN & J. COATMAN Bull. Soc. Géol. Fr. (5) 13 4, 5, 6 1943 p. 163 f. 2, 3, 4; †*G.* (*Glycymeris*) *philippii peelensis* **var. nov.** Oligocene p. 26 pl. 1 f. 7–9; *glycymeris* (*Glycymeris*) *beeseliensis* **sp. nov.** Upper Oligocene p. 39 pl. ii f. 7–9 — Nederlands fossils, J. HEERING Med. Geol. Stichting, Maastricht C4 1 2 1942; †*G.* (*Glycymeris*) *auriculata* **sp. nov.** Miocene Peelgebiede Holland, E. IJSPEERT Med. Geol. Stichting, Maastricht C4 1 1 1942 pp. 4 53 pl. 4 f. 1, 2; †*G.* *veatchii* Biostratigraphy in California, C. T. SMITH 790; †*G.* *kamtschaticus* **sp. nov.** Miocene ? Ugalnaya river, vicinity of Ust, Kamchatsk, W. S. SLODKEWITSCH, Paleont U.S.S.R. 10 3 18 & 19 1938 pp. (145), 105 pl. xi f. 1a, b 2.

†*Navicula vitiensis* **sp. nov.** Vamra Mbalava, Sura formation, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 334 pl. 44 f. 1 J.

## MYTILACEA.

*Anthracomya*, S. v. D. HIEDE 411.

†*Crenella precursor* **sp. nov.** Miocene 1 m. N.E. of Suffolk, Nansemond Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 30 pl. 3 f. 14–16.

†*Cyntodonta reposita* **sp. nov.** Balclatchie Beds, Balclatchie, Girvan (Ordovician), F. R. C. REED Ann. Mag. Nat. Hist. (11) 11 1944 p. 210 p. ii f. 5.

*Modiola naviculoides* pp. 17, 347 pl. 1 f. 1–4; *M. gatuevi* pp. 21, 347

pl. 1 f. 28–29 **spp. nov.**; *M. incrassata sinzovi* **var. nov.** pp. 27, 348, Satmatink, U.S.S.R., V. P. KOLESNIKOV Paleont U.S.S.R. Acad. Sci. 10 2 1935; *Modiola* Crystal. style, J. JOHANSSON 473.

†*Modiolus tigilensis* **nom. nov.** for *M. inflatus* Slodkewitsch, Tighil river, W. coast Kamchatka pp. (249), 122 pl. liii f. 4, a, 5; *M. wajampothensis markini* **nom. nov.** [**var. nov.**] Belogolovaya river pp. (253) 122 pl. liv f. 1, W. S. SLODKEWITSCH Paleont U.S.S.R. Acad. Sci. 10 3 18 & 19 1938.

†*Modiolopsis clintonensis* **nom. nov.** for *M. ovata* Hall 1852, non Conrad 1841, R. H. FLOWER, J. Paleont, Menasha, Wis. 19 1 1945 p. 76; †*M. corneti* **sp. nov.** Lower Devonian, Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 16. 113 pl. viii f. 10–12.

†*Modiomorpha triangularis* **sp. nov.** Siegenian Lower Devonian Pétigny Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 16. 123 pl. ix f. 6–7, 16.

*Mytilus edulis diegensis* nutrition and growth, W. R. COE 230; *M. edulis*, the formation of banks by, R. F. M. GEESTERAMY 371; *Mytilus* Crystal style, J. JOHANSSON 473; *Mytilus* distribution on sand flats, D. S. KUENEN 506; *M. galloprovincialis* Luck, determination of sex, E. RICCI 709.

†*Plethomytilus* [err pro *Plethomytilus* Hall 1884], *kaisini* **sp. nov.** Siegenian, Lower Devonian Mormont Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 p. 83 pl. vi f. 4, 4a, b, 5, 5a.

*Volsella, tulipa* Lk. 1819 = *Volsella americana* (Leach) 1815, H. A. REHDER 706.

## PSEUDOLAMELLIBRANCHIATA.

### PTERIIACEA.

†*Ambonychinia balclatchiensis* **sp. nov.** Balclatchie Beds, Balclatchie, Girvan (Ordovician), F. R. C. REED Ann. Mag. Nat. Hist. (11) 11 1944 p. 213 pl. ii f. 2.

†*Acuellina maxima* Willm., M. BREISTROFFER 162.

†*Aspidotheca gigantea* **sp. nov.** Lower Devonian, Eifel, G. DAHMER, Senckenbergiana, Frankfurt 22 1/2 1940 p. 88 f. 2.

†*Ctenodonta häuerti* sp. nov. Lower Devonian, Schweinskopf, G. DAHMER Senckenbergiana Frankfurt 22 3/4 1940 p. 147 figs. 13a, b.

†*Daonella producta* sp. nov. Trias Tanglan District Kwangsi, China, T. Y. Hsu Bull. Geol. Soc. China 20 2 1940 pp. 174, 176 text-figs.

†*Gervilleia rhomboidalis* sp. nov. Noric, Trias 20 meters S.W. of Hopachung Kochiu, Yunnan, T. Y. Hsu Bull. Geol. Soc. China 20 3-4 1940 pp. 246, 250 pl. i f. 15.

†*Inoceramus scotti* p. 961 pl. 15 f. 1 Alder Springs road, Glenn County; *I. stantoni* p. 961 pl. 15 f. 2 Newville group, S. bank of Grindstone Creek 1200 feet W. of iron bridge on the Winslow-Paskenta road; spp. nov. Mesozoic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington, D.C. 56 10 1945.

†*Limoptera* (*Klinoptera*) *diensii* nom. nov., G. DAHMER Senckenbergiana Frankfurt 25 1-3 1942 pp. 103-108 figs. 1-6; †*L. (Limoptera) richterae* sp. nov. Lower Devonian, G. DAHMER Senckenbergiana, Frankfurt 22 1/2 1940 p. 90 fig. 3.

†*Leptodesma wrepperanum ciphense* subsp. nov. Devonian Richtschnitt Wetteldorf, G. DAHMER, Senckenbergiana, Frankfurt 26 5 1943 p. 362 pl. 3 f. 34-36.

†*Mytilarca vincenti* sp. nov. Emsian, Lower Devonian Mormont Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 15, 85 pl. v f. 9-10.

†*Pinna* of the Paris Basin, C. DECHASEAUX 256.

†*Posidonomya moseblana* sp. nov. Sinemurian Lorraine, L. GUILLAUME Bull. Soc. Géol. France (5) 11 4, 5, 6 1941 pp. 113, 114 pl. iii f. 1, 2a, 3a.

†*Pteria* (*Oxytoma*) *californica* sp. nov. 0.4 mile W. of Paskenta, Tehama County, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington, D.C. 56 10 1945 p. 963 pl. 15 f. 5, 6.

†*Pterinea nylanderi* nom. nov. for *P. brisa* Clarke 1907, not Hall 1868, R. H. FLOWER J. Paleont. Menasha, Wis. 19 1 1945 p. 76; †*P. (Cornellites) dahmeri* nom. nov. = *Pterinea costata spinosa* Dahmer = *P.?* *spinosa* Phillips (ex parte), E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 14 31 pl. 1 f. 9; †*P. (Cornellites) nymaisana*

sp. nov. Siegenian, Lower Devonian, Petigny, Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 14. 35 pl. iii f. 1, 2.

†*Streblopteria schmidtii* sp. nov. Namurian, Belgium, F. DAMARET Mém. Mus. Hist. nat. Belg. 97 1941 p. 87 pl. ii f. 13 text-figs. 21-22.

## PECTINACEA.

†*Aviculopecten sollei* sp. nov. Devonian, Richtschnitt Wetteldorf, G. DAHMER Senckenbergiana, Frankfurt 26 5 1943 p. 356 pl. 3 f. 33.

†*Chlamys* (*Lyropecten*) *planicosta* sp. nov. Miocene, 3 m. S.W. of Frog Level, Pitts Co., N.C., J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 34 pl. 9, f. 1.

†*Flabellipecten arambourgi* sp. nov. Pliocene, Gambetta, Oran, J. ROGER Bull. Soc. Géol. Fr. (5) 13 4, 5, 6 1943 p. 181, text-fig. 1 pl. iii f. 1-4; †*Flabellipecten flabelliformis* group, on the term 'group,' J. ROGER 724.

†*Leiopteria happeli* sp. nov. Devonian, Richtschnitt, Wetteldorfer, G. DAHMER Senckenbergiana, Frankfurt 26 5 1943 p. 364 pl. 4 f. 51.

*Lima tenera* Sow. and *inflata* Lk. habitat and method of swimming, A. H. PATTERSON 633.

†*Lima robertsae* pp. 122, 139 pl. 13 f. 10; *L. twinensis* pp. 122 f. 39 pl. 13 f. 11; spp. nov. Oligocene, N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944; †*L. sakhalinensis* sp. nov. N. of Cape Piloo, northern Sakhalin, Lower Miocene, W. S. SLODKIEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938 pp. (211), 113 pl. xlii f. 8.

*Pecten* at Cape Ann, Massachusetts, R. W. DEXTER 279; *Pecten caurinus* range extended to 700 miles N.W. from Wrangel Narrows, W. S. EYERDAM 301.

†*Pecten* (*Chlamys*) *risti* sp. nov. 5 miles S.W. of Paskenta, Mesozoic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington, D.C. 56 10 1945 p. 962 pl. 4 f. 7; †*P. (Chlamys) menkrawitensis* sp. nov. Miocene, Borneo C. BEETS Verh. Geol. Mijnbouw. Genootsch. Nederl. Koloniën Geol. Ser. 13 1 1941 p. 159 pl. 8 f. 309-310; †*P. (Chlamys) lauensis* p. 339 pl. 46 f. G.H.; *P. (Aequipecten) mbalavuiensis* p. 340 pl. 47 f. D-F; pl. 48 f. A, B Vanna



Mbalava; *Pecten lakemba* p. 343 pl. 48 f. D-E, Lakemba **sp. nov.** Law, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945; †*Pecten*, fossil, Maltese species, J. ROGER 723; †*P. latus* **sp. nov.** Cretaceous, Holland, W. S. M. v. d. WEIJDEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C4 2 1 1943 p. 84 pl. 8 f. 1-3.

†*Pernopecten arcuatus* **sp. nov.** = *Syn-cyclonema carboniferum* Hind (pars) 1903, Charbonnages de Bray, Belgium, Westphalian, F. DEMANET Mém. Mus. Hist. nat. Belg. 101 1943 p. 103 pl. iv f. 3-6.

*Spondylus* an inversed example, C. DECHASEAUX 257.

†*Spondylus levuensis* **sp. nov.** Lakemba Lau, Fiji **sp. nov.**, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 345 pl. 49 f. A, B.

### ANOMIACEA.

*Anomia nobilis* in Pearl Harbour, C. H. EDMONDSON 287; *Anomia* Linnean and Lamarekian species, E. LAMY 516; *Anomia ephippium* L. hinge, G. RANSON 685, 686; *Anomia* shell structure figs., G. RANSON & M. DESJARDIN 690.

†*Anomia boamii* **sp. nov.** Vale del Maso, Rupeliano, S. VENZO Stud trentini, Trento 22 3 1941 p. 195 pl. i.i f. 11 a-c.

†*Placunanomia pinella* **sp. nov.** spoil bank from dredgings of Upper Miocene in Tampa Bay, J. GARDNER, Nautilus, Philad. 59 2 1945 p. 39 pl. 4 f. 1-2, 5-6.

†*Pododesmus* (*Monia*?) *Philippi* **sp. nov.** Miocene 2½ m. below Bayport, Middlesex Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 41 pl. 3 f. 10, 11, 13.

### OSTREACEA.

*Gryphaea angulata*, M. BARGETON 126; *Gryphaea*, R. RICHTER 714; *G. angulata* Luck distribution around the Île d'Oléron, G. RANSON 683.

Ostracea Classification, G. RANSON 687.

*Ostrea* contents, M. BARGETON 95; *O. glycogen*, M. BARGETON 125; *Ostrea* Biology and History, E. S. GREEN 387; *O. edule* swarming pelagic life and setting, P. KORRINGA 504; *Ostrea*, Marketing Luisiana catches, G. H.

SEFEROVICH 796; *O. gasar* (Adanson) attached to *Potamides*, J. MONOD 601; *Ostrea*, G. RAMON 679; *O. virleti* Desh. *O. excavata* Desh. and *O. pseudoeodulis*, G. RANSON 699; *Ostrea*, Bacteriological studies, WISE, WINSTON & CULLI 886.

†*Ostrea locklisie* p. 39 pl. 4 f. 3, 4 pl. 5 f. 1, 2; *O. cozi* p. 40 pl. 5 f. 3-6; **sp. nov.** spoil bank from Upper Miocene in Tampa Bay, J. GARDNER, Nautilus, Philad. 59 2 1945 p. 121; †*O. waccamawensis* **sp. nov.** Pliocene Cronly, Columbus Co. N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 41 pl. 3 f. 17; †*O. (Ostrea) koroensis* **sp. nov.** Vanua Mbalavu p. 334 pl. 44 f. L.M.; *O. (Lopha) oneatensis* **sp. nov.** (= *O. aff. virleti* Ladd Bp. Mus. Bull. 119 p. 170) p. 336 pl. 44 f. K pl. 45 f. A; pl. 46 f. B, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 † *O. oleana* **sp. nov.** Upper Cretaceous Mississippi, L. D. STEPHENSON J. Paleont. Menasha, Wis. 19 1 1945 p. 72 text-figs. 1-7; †*O. (Gryphaea) voluminosa* **sp. nov.** Cretaceous, Holland, W. S. M. v. d. WEIJDEN Med. Geol. Stichting Geol. Bureau Ned. Mijn. Heerlen C4 2 1 1943 p. 95 pl. 9 f. 1-5; †*O. (Alectryonia) frons* (L.), Parkinson; on the name non Linné, R. ABRARD 10; *O. longirostris* Lk., *O. cyathula* Lk., H. ALIMEN 50.

*Pycnodonta*, G. RANSON 680; *Pycnodonta* recent and fossil species, G. RANSON 684; *Pycnodonta hyolis* (L.), G. RANSON 682; *P. cochlear* (Poli) Prodissoconch, figs., G. RANSON 684.

### EULAMELLIBRANCHIATA.

#### UNIONACEA.

*Actinonaias carinata* fig., H. v. d. SCHALIE 744.

*Amblema costata* fig., H. v. d. SCHALIE 744.

Amblenieneae subfam. nov. Elliptionidae type sp. *Amblema plicata* Say 1817; genera *Amblema* Raf. 1819; *Lazopleurus* Meek 1870; *Plectomerus* Conrad 1831, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 180.

*Anodonta cygnea* L., vars *crassa*, *tenuis*, *arenicola*; *A. cellensis solearis* Kstr, vars. *arenicola*, *tenuis*; *A. anatina attenuata* Hald., vars. *crassa*, *arenicola typica*, *tenuis* figs., H. MODELL 592; *Anodonta*, V. FRENZ 360; *Anodonta*, W. S. S. v. B. JUTTING & KUIPER, J. G. G. 486.

†*Anodonta subundata* sp. nov. Pliocene Beceni Gura, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 109. pl. 54 f. 571.

Anodontitinae subfam. nov. Mutelidae typesp. *Anodontites crispatus* Brug. 1792; *Anodontites* Brug. 1792 Tropical South America, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 175.

†*Anthracomya lusitanica* sp. nov. Stephanian N. Portugal, C. TEXEIRA Bull. Soc. Géol. France (5) 13 1, 2, 3 1943 p. 67 pl. iii f. 1; †*A. linisulcata*, *modiolaris*, *pulchra*, *phillipsi tenuis* as zonal indicators in coal seams, ANON. 76.

Aspathariinae subfam. nov. Mutelidae type sp. *Aspatharia rugata* Dkr. 1848 (= *Asp. kamerunensis* Ortm. & Walker) Genera *Aspatharia* Bourg. 1885; *Leptospatha* Roch & Germain 1904; *Arthropteron* Rochebrune 1904; Tropical Africa, H. MODELL Archiv f. Mollusk 74 5/6 1942 p. 177.

Bartlettinae subfam. nov. Mutelidae type sp. *Bartlettia stefaninii* Moricand Genera *Acostaea* Orb. 1835, *Bartlettia* H. Adams 1870, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 176.

Caelaturinae subfam. nov. Unionidae type sp. *Caelatura aegyptiaca* Caillaud 1827 Tropical Africa, Sahara, Kalahari Nil. — genera *Caelatura* Conrad 1853; *Miocruella*, *Kistinaia*, *Rhytidonaia*, *Kalliphinga* all Haas 1936; *Grandidieria* Bourgt. 1885. *Zairia* Rochebrune 1886; *Laevirostris* Simpson 1900, *Mesafra*, *Afroparreyisia*, *Nyasscenio* Haas, H. MODELL, Archiv Mollusk. 74 5/6 1942 p. 190.

Cafferinae subfam. nov. Unionidae typesp. *Cafferia caffra* Krauss 1848. for *Cafferia* Simpson, South Africa, H. MODELL Archiv. f. Mollusk. 74 5/6 1942 p. 188.

†*Carbonicola ovalis*, similis as zonal indicators in coal seams, ANON. 76; †*Carbonicola* fossils from S. Limbourg. (S. v. D. HEIDE 411; †*C. subconstricta* (J. Sow.) type loc. Chapel town 6 m. N. Sheffield, R. V. MELVILLE 585; †*Carbonicola* from coal measures of Leicestershire and Derbyshire, C. J. STUBBLEFIELD 815.

Contradentinae subfam. nov. Unionidae typesp. *Contradens contradens* Lea 1848; genera *Contradens* Haas 1913. *Spesckia* (subgen.) H. Modell 1942; *Prirsidens* Haas 1911, *Simpsonella*

Cockerell 1903, ?*Caudiculatus* Simpson 1900, Philippines, Java, Sumatra, Borneo, Hinter-India to Middle China, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 180.

*Cucumaria cucumis* (Risso) pigmentation, C. MANUNTA 580.

Diplasminae subfam. nov. Mutelidae typesp. *Diplasma vitrea* Raf. (= *Nodularia olivaria* Lea et auct.); *Diplasma* Raf. 1831 Assam, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 177.

†*Elliptio*(?) *hoelzli* sp. nov. Tertiary Hansham, H. MODELL Archiv f. Mollusk. 75 2/3 1943 p. 111 pl. 1 f. 3, a, b.

Elliptionidae fam. nov. H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 178.

Elliptioninae subfam. nov. Elliptionidae, typesp. *Elliptio niger* Raf. 1820 (= *Unio crassidens* auct.); genera *Elliptio* Raf. 1819, *Elliptoidens* Friers. 1927, *Uniomerus* Conrad 1853, *Nephronaias* Crosse & Fischer 1893; ? *Sphenonaias* Cr. & Fisch. 1893; ? *Reticulatus* Friers 1927; *Perpenaias* Friers. 1927; *Pachynaias* Cr. & Fisch. 1893.

Etheriinae subfam. nov. Mutelidae typesp. *Etheria elliptica* Lam. 1807; genera *Etheria* Lam. 1807, Tropical Africa and N. Madagascar; *Pseudomulleria* Anthony 1907 in S. India H. MODELL Archiv f. Mollusk. 5/6 1942 p. 177.

Glabarinae subfam. nov. Mutelidae typesp. *glabaris exoticus* Lam. 1819 (= *Gl. trapesialis* Lk. 1819), genera *glabaris* Gray 1847, *Leila* Gray 1840. Tropical South America and Southern Central America, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 175.

Hendeaninae subfam. nov. Margaritiferidae typesp. *Margaritifera margaritifera* (L.) genera *Margaritifera* Schum. 1816; *Margaritanopsis* Haas 1912, *Cumberlandia* Ortmann 1912; *Ptychorhynchus* Simpson 1900; Europe, E. Asia, N. Amer., H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 181.

Hyriopsinae subfam. nov. Unionidae typesp. *Hyriopsis delphinus* Gruner 1841; genera *Hyriopsis* Conrad 1853, *Lamproscapha* Lindholm 1932; *Arconaia* Conrad 1865; *Lepidodesma* Simpson 1896; *Chamberlainia* Simpson 1900; *Cristaria* Schumacher 1817 East Asia, Amer., Malakka, Borneo, Sumatra,

fossil Miocene and Pliocene, Siberia, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 188.

†*Hyriopsis hanna* sp. nov. = ? *Unio anodontoides* Noulet 1846, nou Lea 1834. Arch. Molluskenk. Frankfurt a.M. 73 4 194 p. 132 pl. 10 f. 1 3.

Iridininae subfam. nov. Mutelidae typesp. *Iridina exotica* Lam. 1819. Genera *Iridina* Lam. 1819, *Pleidodon* Conrad 1834, *Cameronia* Bourgt. 1879, Upper Cretaceous, Lowerocene, S. Paulo, Brazil, H. MODELL Archiv f. Mollusk 74 5/6 1942 p. 176.

Lamellidentinae subfam. nov. Unionidae typesp. *Lamellidens marginalis* Lk. 1819 *Lamellidens* Simpson 1900 India and Burma, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 188.

Lamprotulinae subfam. nov. Unionidae typesp. *Lamprotula nodulosa* Wood 1875; Genera *Lamprotula* Simpson 1900 (Syn. *Gibbosula* Simpson 1900); *Inversidens* Haas *Psilunio* Sabba Stefanescu 1896; *Discomya* Simpson 1900 Europe and Asia, H. MODELL Archiv f. Mollusk 74 5/6 1942 p. 187.

*Lampsilis ventricosa*, fig., H. v. D. SCHALIE 744.

? *Martensnais* Friers 1927; *Micro-nais* Simpson 1900; ? *Canthyria* Swainson 1880; *Plesielliptio* Russel 1934; *Protelliptio* Russel 1934; *Barynais* Cr. and Fisch 1893; *Psoronaia* Cr. and Fisch 1893, H. MODELL Archiv f. Mollusk 74 5/6 1942 p. 180.

†*Microdontella* gen. nov. p. 79 type *M. problematica* pp. 80, 82, f. 4-6, 8, 10-12, 16; *M. janischewski* pp. 81 83 f. 1 2; *M. elongata* p. 84, f. 3 9; spp. nov. Kolckugine Series Novaya-Osinovka Russia, J. V. LEBEDEV Bull. Acad. Sci. U.R.S.S. Biol. 1944 2.

*Microdontella*, the following are referred to the genus, *Palaeomutella microdonta* Khalf. *Posidonomya tominensis* Rag. f. 7 13 15 17, I. V. LEBEDEV 539.

Monocondylacinae subfam. nov. Mutelidae typesp. *Monocondylaea paraguayana* Orb. 1835: Genera *Iheringella* Pils. 1893, *Marshalliella* Haas 1931, *Diplodontites* Marshall 1922, *Tamsiella* Haas 1931, *Monocondylaea* Orb. 1835, *Fossula* Lea 1870, Tropical S. Amer. W. of Andes, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 175.

Mycetopodinae subfam. nov. Mutelidae typesp. *Mycetopoda siliquosa* Spix 1827, Genera *Lamproscapha* Sewns 1840, *Mycetopoda* Orb. 1835, *Mycetopodella* Marshall 1927. Tropical South to Central Amer., Triassic N. Amer., H. MODELL Archiv f. Moll. 74 5/6 1942 p. 176.

†*Myophoria circularis* Beushausen 1895 nom. mu. *sigana* Devonian, G. DAHMER Senckenbergiana Frankfurt 22 1/2 1940 p. 91 f. 10-12.

†*Naiadina cenomanensis* sp. nov. Cenomanian, Cretaceous S. of Source-salée, France, E. BASSE & P. SÉNESSE Bull. Soc. géol. France (5) 9 1 2 3 1939 pp. 24 25 pl. ii f. 3 a-d.

*Naiadites*, S. v. D. HEIDE 411.

Nannonaiinae subfam. nov. Unionidae typesp. *Nannonaiia caerulea* Lea 1831 E. Africa, Madagascar, Reunion, Farther and Hinter India, S. China, Borneo. Genera *Indonaiia* Prashad 1918, *Nitia* Pallary 1924, *Trapezoideus* Simpson 1900. *Nannonaiia* Hans 1912, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 190.

Parreysiinae subfam. nov. Unionidae typesp. *Parreysia corrugata* Müller 1774; Genera *Parreysia* Conrad 1852; *Raditula* Simpson 1900; *Unionella* Haas 1912; *Acuticosta* Simpson 1900; *Pseudobaphia* Simpson 1900; *Protunio* Haas 1912; *Chrysopsseudodon* Haas 1920; *Schistodesmus* Simpson 1900, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 186.

Pleurobeninae subfam. nov. Elliptionidae typesp. *Pleurobema mytiloides* Rafinesque (= *Unio clavas* auct.), Genera *Pleurobenea* Raf. 1820; *Lexingtonia* Ortmann 1941; *Plethobasus* Simpson 1900; *Pleurconaiia* Frierson 1927; *Fusconaiia* Simpson 1900; *Obliguata* Frierson 1927. N. Amer. Westlich. der Felsengebirge, sudlick rermatlich bis Mittel Amer. H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 179.

Prisodontinae subfam. nov. Mutelidae typesp. *Prisodon symmatophorus* v. Muescken 1781, gen. *Prisodon* Schum 1817, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 174.

Pseudaviculinae subfam. nov. Mutelidae typesp. *Pseudavicula johnstoni* Smith 1893, genus *Pseudavicula* Simpson Moeree-Sea, H. MODELL Archiv f. Mollusk. 74 5/6 1942 p. 176.

†*Psilunio* (*Psilunio*) *subclivosus ponderosus* subsp. nov. Pliocene Levantine W. WENZ Senckenbergiana Frankfurt 24 1942 p. 96 pl. 37 f. 517-518; *P. (Psilunio) krejci* sp. nov. Pliocene Valea Budurească, W. WENZ Senckenbergiana Frankfurt 24 1942 p. 98 pl. 41 f. 532; *P. littoralis* (Cuv.) fig., A. S. KENNARD 495.

†*Ptychorhynchoideus* Modell 1931 Oberbayr., Cynrenschichten S. 71 typas. *Ptyah. gumbeli* Mod., H. MODELL 596.

Rectidentinae subfam. nov. Unionidae typesp. *Rectidens orientalis* Lea 1840; Genera *Rectidens* Simpson 1900; *Pilsbryconcha* Simpson 1900; *Eusidens* Frierson 1911; *Pyganodon* Crosse & Fischer 1893. N. Europe, S.E. Asia, N. Amer., H. H. MODELL Archiv f. Mollusk 74 5/6 1942 p. 189.

*Rockanaia gutmansi* gen. et sp. nov. [Unionidae] Rio Nioaque, dugar Cedro, Mato Grosso. F. L. DE MORRETES Arg. Inst. Biol. São Paulo 12 1941 pp. 75 76 text-fig. pls. 31 32.

Spathopsinae subfam. nov. Mutelidae typesp. *Spathopsis wahlbergi* Krauss 1848, Genus *Spathopsis* Simpson 1900 in Africa and Guiana, S. Amer.

*Sprichia* subgen. nov. of *Contradens* subgenotype *Contradens (Sprichia) verbecki* v. Martens. Sinkwrak Sea, Sumatra, H. MODELL Arch. Molluskenk. Frankfurt a.M. 74 5/6 1942 p. 189.

†*Sulcatapex* gen. nov. Unionidae type *Sulcatapex cretaceus* sp. nov. lower Cretaceous, Sage Creek, Wyoming. T. C. YEN Notulae Naturae 166 1946 pp. 4 6 figs. 2 2 a-c.

Trigonodinae subfam. nov. Elliptionidae typesp. *Trigonodus sandbergeri* v. Alberti 1864 genus *Trigonodus* Alberti 1864, H. MODELL Archiv f. Mollusk. 74 5/6 p.—.

*Unio pictorum*, *tunidus*, W. S. S. v. B. JUTTING & J. G. G. KUIPER 486; *U. pictorum latirostris* Kstr. vars. *typica*, *arenicola*, *crassa*, *tenuis*, *obtusa*; *Unio crassus cythereu* Kstr. vars. *arenicola*, *crassa*, *typica*, *tenuis*, figs., H. MODELL 592; *U. pictorum* and *crassus* used in button manufacture, U. STEUSLOFF 807; †*Unio broilii* sp. nov. Oberkirehbg in Ulm. Tertiary. H. MODELL Archiv f. Mollusk. 73 4 1941 p. 135 pl. 10 f. 4-6; Unionidae of Amper, figs., H. MODELL 592; Unionidae of W. Europe, H. MODELL

594; Unionidae of S. Africa, J. H. PÉRES 643.

*Vanderschaliea* gen. nov. Elliptionidae (Alasmidontinae) genotype *V. kolasi* (Modell) 1931, H. MODELL Archiv f. Mollusk. 75 2/3 1943 p. 112 pl. 1 f. 4.

†*Warburgia asteroidea* sp. nov. Starfish Bed, Drummuck Group, Ladyburn Girvan (Ordovician), F. R. C. REED Aus. Mag. Nat. Hist. (11) 11 1944 p. 212 pl. ii f. 4 4a.

## TRIGONIACEA.

†*Schizodus* Murchison and De Verneuil 1844 has genotype *Axinus obscurus* Sowerby 1823, t.s.d. of De Verneuil 1845, D. NICOL 616.

## ASTARTACEA.

*Astarte* Sowerby Geographic survey of the genus, recent and fossil, R. ABRARD 6; *A. sulcata* Costa common from Tangiers to Agadir and probably further Southward, R. R. DOLLFUS 289.

†*Astarte (Nicianiella) praemysis* sp. p. 51 f. 4 5 bis; *N. (N.) soror* p. 52 f. 5 5 bis: spp. nov. Condebugle, A. CHAVAN J. Conchyliol Paris 86 2 1945; †*A. roanokensis* Miocene Halifax N. Carolina, p. 53 pl. 12 f. 9 10; *A. hertfordensis* Miocene Neufreesboro Hertford Co., N. Carolina, p. 53 pl. 12 f. 11 12 21; *A. stephensoni* Miocene Halifax, N. Carolina, p. 54 pl. 12 f. 16 17; *A. berryi* Miocene 2½ m. N.W. of Chocowinity, Beaufort Co., N. Carolina, p. 56 pl. 12 f. 23 24 spp. nov.; *A. hertfordensis meherrinensis* Miocene Branches Bridge over the Mehevrin R., Northampton Co., N. Carolina, p. 54 pl. 12 f. 18 subspp. nov.; *Astarte (Ashtaroitha) rappahannockensis* Miocene Rappahannock River Bluffs, near Urbanna, Virginia, p. 56 pl. 12 f. 19 20; *A. (Ashtaroitha) grif. touensis* Miocene, 2 m. E. of Grifton, Pitt Co., N. Carolina, p. 57 pl. 12 f. 22 28; spp. nov.; *A. (Ashtaroitha) undulata deltoidea* Miocene 7-7½ m. below Zuni, I. of Wight, Co. Virginia, p. 59 pl. 12 f. 29 30 35 36; *A. (Ashtaroitha) concentrica conradi* Miocene 4-5 m. below Lumberton, Robeson Co., N. Carolina, p. 60 pl. 12 f. 37 41; subspp. nov., J. GARDNER Prof. Pap. N.S. Geol. Surv. 199a 1943; *A. pygmaea glabra* var. nov. Upper Oligocene, Rumel J.



GORGES Decheniana Bonni. 106a 1941 p. 166 pl. iii f. 16 17.

†*Crassatella symmetrica* sp. nov. Holotype Geol. Bureau Haerlem, W. J. M. v. D. WEIJDEN Med. Geol. Stichting Geol. Bureau Ned. Neijse Heerlen C4 2 1 1943 p. 49 pl. 2 f. 11 12.

†*Crassatellites washingtoniana nygereni* subsp. nov. Oligocene N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 122 143 pl. 13 f. 4.

†*Crassinella lunulata harrisi* subsp. nov. Miocene, Yorktown, Virginia, p. 63 pl. 14 f. 45; *C. nansemondensis* sp. nov. Miocene  $\frac{1}{2}$  m. below Suffolk Waterworks dam on the Nansemond R., Virginia p. 64 pl. 13 f. 18 27, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943.

*Nicanella* subgen. nov. of *Astarte*, type *Astarte communis* Zittel and Goubert, J. de Conch. 1861 p. 201, A. CHAVAN J. Conchyliol Paris 86 2 1945 p. 43.

### CARDITACEA.

*Arcturella* subgen. nov. Cyclocardia type *Venericardia asperula* Desh. 1824, A. CHAVAN J. Conchyliol Paris 81 1 1941 p. 100 f. 2.

*Cardita* (*Gelocardia*) *longini* nom. nov. for *Venericardia* (*Cyclocardia*) *nodulosa* Dall 1919 nou Reeve, J. L. BAILY JR. Nautilus Philad. 58 4 Apr. 1945 p. 118.

†*Cardita etalonuensis* sp. nov. Kавран Series, W. coast of Kamchatka, p. (308) pl. lxiii f. 3 a 4 pl. lxiv f. 1 2, W. S. SLODKEWITSCH Paleont. U.S.S.R. Acad. Sci 10 3 18 1938; †*C. piltunensis* sp. nov. between Piltuk and Poromai rivers, Sakhalin pp. (299) 132 pl. lxii f. 7; 8 a 9; *C. kamtschatica dvalii* var. nov. W. coast of Kamchatka pp. (304) 135 pl. lxii f. 3 4 a; *C. matiturskensis* sp. nov. S. of Piltuk river, Schmidt Peninsula, N. Sakhalin pp. (307) 137 pl. lxi f. 10 11 a; *C. rafensis* sp. nov. nr. Korf Gulf, E. coast Kamchatka pp. (328) 144 pl. lxxv f. 15 16, W. S. SLODKEWITSCH Paleont. U.S.S.R. 10 3 18 and 19 1938.

†*Carditamera arata verdevilla* subsp. nov. Miocene 8–9 m. S. of Greville, Pitt Co., N.C., p. 69 pl. 15 f. 5 6; *C. columbiana* sp. nov. Pliocene, Neills Eddy Landing on Cape Fear, R.

Columbus Co., N. Carolina, p. 69 pl. 15 f. 9 10, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943.

*Carditopsis*, J. ROGER & G. LEFEBURE 727.

†*Glans tryensis* sp. nov. Eocene Paris Basin, A. CHAVAN J. Conchyliol Paris 84 2 1941 p. 170 f. 6.

*Paraglans* subgen. nov. *Venericardia* type *Cardium* (*Cardita*) *calcitrapoides* Lk. 1806, A. CHAVAN J. Conchyliol Paris 81 1 1941 p. 9 f. 1.

†*Venericardia* (*Venericor*) *suessonensis hondainvillensis* var. nov. Eocene Paris Basin, A. CHAVAN J. Conchyliol Paris 84 2 1941 p. 165 f. 4; †*V. tumiensis* pp. 41 68 pl. vi f. 21–24; *V. matschigarica* pp. 42 68 pl. viii f. 1; spp. nov. Machigar section, Middle Miocene Schmidt Peninsula, Sakhalin Island, I. P. KHOMENKO Tertiaries of the Schmidt Peninsula Trans. geol. Oil Trust Moscow A103 1938.

### SPHAERIACEA.

*Corbicula fluminalis* Müll., a new link in Asiatic distribution, N. K. DECKSBACH 258.

†*Corbicula fluminalis* (Müll.) fig., A. S. KENNARD 495; †*C. fluminalis* Pleistocene Escanaffles, F. HALET 397.

*Musculium lacustre* Müll., W. VIELHAUER 847.

*Neomiodon* (*Miodontopsis*) *maillardi* Bigot fig. 9; *N. bigoti* p. 65 f. 11; *N. dangeardi*, p. 66 pl. 1 f. 13 text-fig. 12; *N. deltoideus* p. 68 pl. 1 f. 16; *N. doligei*, p. 69 pl. 1 f. 10 11 18 fig.-text 13; *N. fallax*, p. 71 fig. 14; *N. major*, p. 73 pl. 1 f. 12 text-fig. 8 16; *N. ovatostratus* p. 75 pl. 1 f. 3 text-fig. 17; *N. spartelloides*, p. 76 pl. 1 f. 5; *N. trigonoides*, p. 77 text-fig. 18; spp. nov. Jurassic, Cordebugle; *N. fallax percrassa* var. nov., p. 72 f. 15 Jurassic, Cordebugle, A. CHAVAN J. Conchyliol Paris 86 2 1945.

*Pisidium* (*Neopisidium*) *dammermani* sp. nov. Sumba, N. H. ODHNER Nova Guinea N.S. 4 1940 pp. 113–132 figs.; *P. (Eupisidium) wilhelminae*; *P. (E.) habbemae*; *P. (E.) inflexum* spp. nov. New Guinea, N. H. ODHNER Nova Guinea N.S. 4 1940 pp. 113–132 figs.; *P. amnicum* (Müll.), *henslowianum* (Shepp.), *moitessierianum*, Palad., *tenusilineatum* Stelfox, *subtruncatum* Malm. *casertanum* Poli = *P. cinereum*

Ald., *personatum* Malm., *obtusale* = *P. obtusalastrum* B. B. Woodw., *hibernicum* Westerl., *nitidum* Jen., *milium* Held, *pulchellum* Jen. *lilljeborgi* Cless., *conventus* Cless., figs. in Neuchatel Canton, J. FAVRE 306; *Pisidium* Diagnosis of species, H. B. HERRINGTON 418; *Pisidium* figs., W. S. S. v. B. JUTTING & J. G. G. KUIPER 486; *Pisidium*, Ecology of J. G. J. KUIPER 508; *Pisidium*, J. G. J. KUIPER 510.

†*Pisidium woodringi* nom. nov. for *P. exiguum* Yen non Sterki, T. C. YEN Nautilus Philad. 59 1 1945 p. 34; †*Pisidium*, Pleistocene fossils, Velzen, figs., ALTENA & KUIPER 64; †*P. sulcatum* S. V. Wood, *amnicum* (Müll.), figs., A. S. KENNARD 495; *P. (Neopisidium) vinctianum* B. B. Woodward, figs., H. SCHLESCH 758.

*Sphaerium*, W. S. S. v. B. JUTTING & J. G. G. KUIPER 486; †*Sphaerium*, Pleistocene fossils Velzen, figs., C. O. V. R. ALTENA & J. G. J. KUIPER 64.

#### ISOCARDIACEA.

†*Isocardia fraterna glenni* subsp. nov. Holotype, Maryland Geol. Surv. John Hopkins University Baltimore, Ind., GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 68 pl. 16 f. 1-2.

#### CYPRINACEA.

†*Coralliophaga* ? *microreticulata* sp. nov. Miocene  $\frac{1}{2}$  m. below Suffolk Waterworks dam, Nasemond Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 66 pl. 9 f. 2-6.

†*Cypricardella asselberghe* sp. nov. Siegemian, Lower Devonian Olloy Wedeune, E. MAILLIEUX Mém. Mus. Hist. Nat. Belg. 81 1937 pp. 19 211 pl. xi f. 1-4.

*Cyprina*, Crystal Style, J. JOHANSSEN 473.

†*Goniophora stainieri* sp. nov. Siegenian, Lower Devonian, Petigny Ardenne, E. MAILLIEUX Mém. Mus. Hist. Nat. Belg. 81 1937 pp. 17 142 pl. ix f. 11.

†*Isocyprina* (*Eotrapezium*) *lexoviensis* sp. nov. Jurassic Cordebugle, A. CHAVAN J. Conchyliol Paris 86 2 1945 p. 82 pl. 1 f. 1 2 17 text-fig. 19.

†*Megalodon cucullatus* Sow. fig., C. DECHASFEAUX 250.

†*Pseudotrapezium douvillei* sp. nov. Jurassic, Cordebugle, A. CHAVAN J. Conchyliol Paris 86 2 1945 p. 85 pl. 1 f. 7 14 15 19.

†*Trapezium auberti* sp. nov. Pleistocene, French Somaliland, R. ABBARD Arch. Mus. Paris (6) 18 1942 p. 30 pl. iii f. 15-18.

#### DREISSENACEA.

*Dreissensia polymorpha* Pallas, figs., J. PETRBOK 651; *Dreissensia* metabolism of Gill epithelium, C. WERNSTEDT 874.

#### LUCINACEA.

†*Oteta* [Mörch 1860 non Wellk. 1805] *microimbricata* sp. nov. Miocene Natural Well, Duplin Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 75 pl. 13 f. 31 32.

*Codakia orbicularis* (L.) is *Chama Codok* of Adanson's Hist. nat. Senegal p. 225 pl. 16 f. 2, E. FISCHER-PIETTE 326; *Codakia* Scopoli, A. MAGNE 568.

*Diplodonta* (*Felania*) *diaphana* (Gmel.) is the "*Chama Felan*" of Adanson Hist. Nat. Senegal p. 227 pl. 16 f. 8, E. FISCHER-PIETTE 326.

†*Diplodonta leana eoleana* subsp. nov. St. Marys formation. Urbana, Middlesex Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 80 pl. 14 f. 37 38.

†*Eophysema cossmanni* sp. nov. Eocene Paris Basin, A. CHAVAN J. Conchyliol. Paris 84 2 1941 p. 157 f. 2 2 bis.

†*Herella* subgen. nov. of *Here* Gabb 1869, type *Lucina beresquei* Deshayes of the Cuisian de Mercin (Aisne), A. CHAVAN C. R. Séances Soc. geol. Fr. 1942 p. 63.

*Lentillaria* Schum. *V. orbicularis*, A. MAGNE 568.

*Lucina pecten* Lk. = *Venus orbiculata* Netg. = *Venus eburnea* Gmel. (non. Desh., non Reeve), "*Pectunculus Jagon*" Adanson Hist. nat. Senegal p. 245 pl. 18 f. 3, E. FISCHER-PIETTE 326; *Lucina* Brug. should have as type *Venus pennsylvanica* L. not *punctata*, A. MAGNE 568.

†*Lucina* (*Myrtea*) *butonensis* sp. nov. Upper Oligocene, East Indies, C. BEETS Leidsche. geol. Mededeel. 13 1942 p. 314 pl. xxx f. 143-146.

†*Paracyclas belgica* sp. nov. Siegenian, Lower Devonian, Courion Ardenne, E. MAILLIEUX Mém. Mus. Hist. Nat. Belg. 81 1937 pp. 19 221 pl. xii f. 9 10.

*Periglypta* Juk.-Brow. *Venus puer-pura* L., A. MAGNE 568.

†*Phacoides* (*Linga*) *indrai* sp. nov. Miocene Borneo, C. BEETS Verh. geol. Mijnbowk. Genooatch. Nederl. Kolonien Geol. Ser. 13 1 1941 p. 160 pl. 8 f. 316-318; †*P. (Cardiolucina) postalveatus* sp. nov. Miocene Yorktown, Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 77 pl. 13 f. 17.

†*Pterolucina* gen. nov. Lucinidae type *Lucina coeloprocta* Cossmann, Anversian, of Anvers-sur-Oise. A. CHAVAN C. R. Séances Soc. géol. France 1942 p. 63.

†*Saxolucina* (*Megaxinus*) *lamyi* sp. nov. Pleistocene, French Somaliland, R. ABRARD Arch. Mus. Paris (6 18) 1942 p. 39 pl. iv f. 25 26.

†*Taras* (*Taras*) *gravis* "Kogan" sp. nov. Upper Miocene, W. Sakhalin pp. (364) 150 pl. lxxii f. 1 a 2 3 4 a; *T. (Felaniella) gouldi sertunayensis* "Kogan" var. nov. Upper Miocene, Kamchatka pp. (369) 151 pl. lxxii f. 10 11 a 12 13, W. S. SLODKIEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18-19 1938; †*T. goodspeedi* sp. nov. Oligocene, N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117 145 pl. 13 f. 1.

### ERYCINACEA.

†*Aligena chowanensis* Miocene, Choconu R., Bertie Co., N. Carolina, p. 87 pl. 14 f. 31 32; *A. rhomboidea* Dupline marl Miocene, Natural Well, N. Carolina, p. 87 pl. 14 f. 23 spp. nov., J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943.

†*Bornia bladenensis* sp. nov. Waccamaw formation, Pliocene, Walkers Bluff, Bladen Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 83 pl. 14 f. 11 12.

†*Erycina carolinensis elongata* subsp. nov. Pliocene, Neills Eddy Landing, Cape Fear R., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 82 pl. 14 f. 1.

*Erycinella*, J. ROGER & G. LEFEBURE 727.

*Lasaea rubra* habitat, P.-H. FISCHER 313.

†*Mysella bladenensis* p. 86 pl. 14 f. 17 18; *M. vélaini* p. 86 pl. 14 f. 15

16; *M. majorina*, p. 86 pl. 14 f. 13 14, spp. nov., Waccamaw formation, N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943.

### CHAMACEA.

†*Agria tetragona*, *A. mutans*, *A. abbreviata*, *A. pulchella*, *A. carinata*, *A. favrei*, *A. marticensis* all of Matheron 1876 = *Agria blumenbachii* Studen 1834, S. FABRE 303.

†*Arnaudia* — on the genus, C. DECHASEAUX 255.

*Caprinula cedrorum* Blanckenhorn, C. DECHASEAUX 252.

*Chama rauderalis australis* var. nov. for *Chama fimbriata* Reeve 1872 non DeFrance 1818, R. ABRARD, J. Conchyliol. Paris 84 2 1941 p. 189.

†*Diceras angulatum* Bayle, *Eximium* Bayle, figs.—on the origin of *Diceras* C. DECHASEAUX 250; *Diceras* & *Heterodiceras*, C. DECHASEAUX 253.

†*Heterodiceras* — *Diceras* et . . . [nomenclature], C. DECHASEAUX 253.

†*Hippurites* — Gigantism, G. ASTRE 83; *Hippurites* figs., G. P. PORTALÉS 673.

†*Protodiceras pumilus* Gümbel fig., C. DECHASEAUX 250.

†*Radiolites desmoulini* Matheron 1842 = *Praeradiolites plicatus* Lajard, Nigrel & Toulouzan 1824, S. FABRE 303.

*Requienia ammonia* Matheron 1842 = *R. ammonia* Goldfuss 1838, S. FABRE 303.

†*Rudistes* in the Cenomanian, G. ASTRE 84; *Rudistes* biology, C. DECHASEAUX 254.

*Sauvagesia* figs., G. P. PORTALÉS 673.

†*Toucasia*, *Scalariforme*, from Tarago, Spain, G. ASTRE 82.

### CARDIACEA.

*Cardium bengasiensis* p. 136, f. 3, 4; *C. coëfiensis* p. 139, f. 5, 6; spp. nov. Bengazi, H. KALTENBACH Archiv f. Mollusk. 75 2/3 1943; *C. edule* L. structure, M. HOOP 428; *C. edule*, Ecology, D. KREGER 505; *C. lineatum* Lamarck, E. LAMY 517; *Cardium*, notes on the Lamarckian species, E. LAMY 520; *C. costatum* L., *C. indicum* Lk., *C. ringens* Chem., *C. asiaticum*

Brug., *C. tenuicostatum* Lk., *C. fibriatum* Wood, *C. brasilianum* Lk., *C. apertum* Chem., *C. papyraceum* Chem., *C. bullatum* Chem. (non Linné), E. LAMY 521; *C. retricosum* Brug., *C. rugosum* Lk., *C. sulcatum* Lk., *C. serratum* Lk. (non L.), *C. laevigatum* Wood (non L.), *C. biadiatum* Brug., *C. aeolicum* Born; *C. pectinatum* Lk. (non L.), E. LAMY 522; *Cardium* notes on Lamarck's species, E. LAMY 523; *C. unedo* L., *C. medium* L., *C. fragum* L., *C. retusum* L., *C. tumoriferum* Lk., *C. hemicardium* L., *C. cardissa* L., *C. inversum* Lk., *C. junoniae* Lk., E. LAMY 524; *Cardium* Lamarck's species, E. LAMY 525.

†*Cardium corburicum* sp. nov. Cretaceous, Source-salée, France, E. BASSE & P. SÉNESSE Bull. Soc. Géol. France (5) 9 1, 2, 3 1939 pp. 23, 24, pl. ii, f. 2 a, b; †*C. nefandum* sp. nov. U.S.S.R. Sarmatian V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935 pp. 91, pl. x, f. 24–29; †*C. (Acanthocardia) denticostulatum* sp. nov. Verh. Geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 1 1941 p. 163, pl. 8, f. 319–326.

†*Didacna subcarinata luxuriosa* subsp. nov. O. Pout-A. Day Valea Salcii Pliocene, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 131, pl. 71, f. 741 pl. 67, f. 704; †*D. subcarinata arcaeformis* subsp. nov. M. Pont, W. WENZ Senckenbergiana, Frankfurt 24 1942 p. 132 pl. 67 f. 705–708.

*Fragum chapmani* nom. nov. for *Cardium arcaeformis* Chapman and Crespín J. Roy. Soc. W. Australia 20 1934 p. 121 non Gabb 1869 nec *C. (Ceratoderma) a.* Boettger 1880, I. CRESPIÑ Aust. J. Sci. Sydney 8 1 1945 p. 23.

†*Laevicardium (Ceratoderma) etheringtoni* 'Kogan' sp. nov. Middle and Upper Miocene, Sakhalin, W. S. SLODKIEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938 pp. (388), 154, pl. lxxxiv, f. 11 a, 12.

†*Papyrida matschigarica* sp. nov., Middle Miocene Schmidt Peninsula Sakhalin Id., I. P. KHOMENKO Trans. Geol. Oil Trust Moscow A. 103 1938 pp. 68, pl. vii, f. 5–7, pl. viii, f. 6, pl. ix f. 7; †*P. angulata* 'Kogan' sp. nov. pp. (404), 157, pl. lxxxi, f. 8, a; Upper Miocene Sakhalin; *P. sertunayana* 'Kogan' sp. nov. pp. (405), 158,

pl. lxxxii, f. 3, a; Upper Miocene E. coast Kamchatka; *P. sakhalinensis* 'Kogan' Upper Miocene Sakhalin pp. (412), 161, pl. lxxxvi, f. 1, a; *P. noyamiana* 'Kogan' Upper Miocene Sakhalin pp. (413), 182, pl. lxxxvi, f. 2, 3, a, W. S. SLODKIEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938.

†*Phyllicardium* [*Phyllocardium*] *planum rumanum* p. 134, pl. 68, f. 721–724; *P. p. giganteum* p. 134 pl. 69 f. 725: subsp. nov. Pliocene Valea Salcii, W. WENZ Senckenbergiana, Frankfurt 24 1942.

†*Pterocardium burignieri* Desh., C. DECKESEAUX 250.

†*Trachycardium munieri* sp. nov. Eocene, Paris Basin, A. CHAVAN, J. Conchylol., Paris 84 2 1941 p. 153, f. 1.

### VENERACEA.

†*Atopodonta luzonensis* sp. nov. Vigo. Miocene, Luzon, C. BEETS Leidsche geol. Meddeel 13 1942 p. 334, with remarks on the genus.

†*Clementia fischeri* sp. nov. Pleistocene, French Somaliland, R. ABRARD Arch. Mus. Paris (6) 18 1942 p. 37, pl. iv, f. 19 20; †*C. (Egesta) sakhalinensis* sp. nov., N. Sakhalin Tertiary, W. S. SLODKIEWITSCH Paleont. U.S.S.R. Acad. Sci. 10 3 18 & 19 1938 pp. (419) 165, pl. xci, f. 1 a.

†*Cyprina sawitiae* sp. nov. Miocene Borneo, C. BEETS Verh. geol. Mijnbouwk. Genootsch. Nederl. Koloniën Geol. Ser. 13 1 1941 p. 165, pl. 8, f. 334–337.

*Dosinia ponderosa* Northern limit Scammon's Lagoon, Lower California, W. P. WOODRING 887.

†*Dosinia lakemba* sp. nov. Lakemba, Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 349, pl. 49, f. I J.

*Eutivela* Revision of living species, E. FISCHER-PIETTE & P. H. FISCHER 343.

†*Gemma magna majorina* subsp. nov. Miocene Yorktown Formation, 1 m. E. of Lizzio, Greene Co., N. Carolina, p. 136, pl. 19, f. 19 27; *G. m. insulcata* subsp. nov. Pliocene, Waccamaw formation, Neills Eddy Landing, Columbus Co., N. Carolina, p. 137, pl. 19, f. 14 22; *G. cravenensis* sp. nov. Miocene, Yorktown formation, Rock Landing on Neuse R., Craven Co., N. Carolina,



p. 137, pl. 19, f. 23 24; *G. verdevilla* sp. nov. Miocene Yorktown formation, 8-9 m. S.E. of Greenville, Pitt Co., N. Carolina, p. 138, pl. 19, f. 31 32, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943.

†*Macrocallista (Costacallista) emmonsii* sp. nov. Duplin Marl Miocene, Natural Well (?), Duplin Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 123, pl. 19, f. 6 9.

†*Marcia (Marcia) makawassa* sp. nov. Lakemba, Lau, Fiji, H. S. LADD Bull. Bishop Mus. Honolulu 181 1945 p. 349 pl. 50 f. A-C.

*Meretrix meretrix reevei*, p. 330; *M. m. fulva*, p. 330; *M. m. bourdasi*, p. 332; *M. m. chenui*, p. 337; *M. m. hidalgoi*, p. 338; vars. nov., E. FISCHER-PIETTE & P. H. FISCHER J. Conchylol. Paris 84 4 1941; *M. meretrix alba* var. nov., E. FISCHER-PIETTE & P. H. FISCHER J. Conchylol. Paris 84 4 1941 p. 326; *Meretrix* s.s. Revision, E. FISCHER-PIETTE & P. H. FISCHER 342.

†*Meretrix (Callista) exintermedia* Sacc. trigona var. nov. Oligocene Valle del Maso, Lattoafiano, S. VENZO Studi trentini Trento 22 3 1941 p. 188, pl. ii f. 9.

*Paphia aurea* (Gmel.) and *P. senescens* (Cocc.), C. O. v. R. ALTENA 55; *P. aurea* Gmel. and *P. senescens* Cocconi 1873, J. BROUWER 166.

*Tivela* Revision of living species, E. FISCHER-PIETTE & P. H. FISCHER 343.

Veneridae Quoy and Gaimard species, E. FISCHER-PIETTE & E. LAMY 346.

†*Venus (Mercenaria) berryi* sp. nov. 3 m. below Bowlers Wharf, Essex Co., Virginia, St. Mary's formation, Miocene, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 133, pl. 21, f. 1-6.

†*Waisiuconcha* gen. nov. Veneridae type *W. alberdinae* sp. nov. Upper Oligocene East Indies, C. BEETS Leidsche Geol. Mededeel. 13 1942 pp. 315 316 pl. xxx f. 147 151.

#### MACTRACEA.

†*Cardilia bruneiana* p. 357 f. 1-3 6; *C. palembangensis*, p. 358 f. 4-5 7-8 9 10 spp. nov. Miocene Borneo, C. BEETS Verk. geol. mijnbouw Genolsch

Nederl. Kolonien Geol. Ser. 13 (2) 1943.

†*Ervilia lata radiata* subsp. nov. Pliocene Waccamaw formation, Neills Eddy Landing on Cape Fear R., Columbus Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 116, pl. 23, f. 25 29; †*E. dissita andrussovi* var. nov. U.S.S.R. Sarmatien, K. T. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935 pp. 43 350, pl. iii, f. 21-25.

*Maetra corallina pliston eerlandica* Regteren Altena, J. BROUWER 165; †*Maetra corallina pliston eerlandica* subsp. nov. Dutch coasts, chiefly N.W. shore of Walcheren, C. O. v. R. ALTENA Bijdrage tot. Kennis Rotterdam 1937 pp. 87 88 pl. 7 f. 107-108; †*M. sammamishensis* sp. nov. Oligocene N.-Western Washington, U.S.A., J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 128 152 pl. 13 f. 2 8; †*M. (Mactrotoma) fragilis precursor* subsp. nov. Pliocene Waccamaw formation, Neills Eddy Landing, Columbus Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 109, pl. 18, f. 14; †*M. seducta* sp. nov. U.S.S.R. Sarmatian, V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935 pp. 55 351, pl. vi, f. 4-7.

Mactridae, review, ANON 71.

†*Mesodesma spatha* sp. nov. Miocene Yorktown formation, 1 m. N.E. of Suffolk, Nansemond Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 115, pl. 18, f. 8 12.

*Serobicularia plana* da Costa, W. SCHAFER 740.

†*Spisula (Hemimactra) rappahannockensis* sp. nov. St. Mary's formation, 1-2 m. below Bowlers Wharf on the Rappahannock R., Essex Co., Virginia, p. 110, pl. 18, f. 2-4 7; *G. (H.) modicella alta* subsp. nov. Yorktown formation, Rock Landing, Craven Co., N. Carolina, p. 111, pl. 23, f. 16 17; *S. (Mactromeris) bowlerensis* sp. nov. 1½ m. below Bowlers Wharf, Rappahannock R., Virginia, St. Mary's formation, p. 112, pl. 18, f. 1 5, Miocene fossils, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943.

#### TELLINACEA.

†*Apolymetis twinensis* sp. nov. Oligocene, N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 127, 150, pl. 13, f. 7.

*Donax (Latona) denisi* sp. nov. loc. ? p. 559, f. 2; *Donax (Latona) victoris* nom. nov. = *D. (L.) granosus* Römer non Lamarck = *D. bertini* Dautz. non Pilsbry, E. FISCHER-PIETTE Bull. Mus. Hist. nat. Paris (2) 13 6 1941; *D. triquetra* Lk., *D. scripta* L., *D. meroe* L., E. FISCHER-PIETTE & E. LAMY 345; *Donax*, a review of Californian species, W. C. GREGG 384.

†*Donax chuckatuckensis* sp. nov. Miocene,  $\frac{1}{4}$  m. N. of Chuckatuck, Nansemond Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199A 1943 p. 106, pl. 23, f. 6, 7.

†*Gastrana fragilis sarmatica* var. nov. Sarmatia, V. P. KOLESNIKOV Paleont U.S.S.R. Acad. Sci. 10 2 1935 pp. 28, 348, pl. ii, f. 1-4.

*Heterodonax messengeri* sp. nov. Tahiti, E. FISCHER-PIETTE Bull. Mus. Hist. nat., Paris (2) 13 6 1941 p. 556, f. 1.

*Macoma baltica* L. structure, M. HOOP 428.

†*Macoma cookei* sp. nov. Miocene, Yorktown, Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 100, pl. 17, f. 8, 11; †*M. echabiensis* sp. nov. Middle Pliocene, Sakhalin, W. S. SLODKEWITSCH Paleont U.S.S.R. Acad. Sci. 10 3 18 & 19 1938 pp. (474), 173, pl. xcv, f. 1, 2, 3, 4, 5, 6.

†*Semele subovata alta* subsp. nov. 2 miles N.E. of Lizzie, Greene Co., North Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 101, pl. 17, f. 16, 17.

*Tellina liana* nom. nov. for *T. panamensis* Li [non. Phil.] Bull. Geol. Soc. China 9 3 1930 p. 262, pl. 5, f. 32 type in Calif. Acad. Sci., L. G. HERTLEIN & A. M. STRONG, Nautilus, Philad. 58 3 Jan. 1945 p. 105; *T. panamensis* Li, a correction, H. A. PILSBRY 660; *T. georgiana* Dall. in Florida, M. SMITH 791.

†*Tellina woodmanensis* sp. nov. Oligocene, N. Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 117, 149, pl. 13, f. 5; †*T. (Moerella ?) verdevilla* p. 97 pl. 17 f. 6, 7 Miocene 6 m. below Greenville, Pitt Co., N. Carolina; *T. (Moerella ?) calpix* p. 98, pl. 17, f. 2, 3, Miocene 9 m. below Greenville; spp. nov., J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943; †*T. venezuelensis* sp. nov. (Pleistocene)

Juan Grigo, Margarita Island, Venezuela, H. G. RICHARDS J. Paleont. Menasha, Wis. 17 1 1943 p. 122, figs. 3-5.

Tellinidae, B. L. & T. A. BURCH, 176.

*Sanguinolaria undulata*, Sow & Phillips, A. ERNI 296.

## SOLENAMEA.

†*Orthonota praecarinata* sp. nov. Siegenien pp. 17, 146, pl. x, f. 8; *O. arduennensis* sp. nov. Emsien pp. 17, 147, pl. vi, f. 9: Lower Devonian, Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937.

†*Solen kamchaticus* sp. nov. Miocene Ust-Kamchatsk region, E. coast Kamchatka, W. S. SLODKEWITSCH Paleont U.S.S.R. Acad. Sci. 10 3 18 & 19 1938 pp. (484), 175, pl. xcix, f. 1, 2, a.

Solenidae, ANON 70.

## SAXICAVACEA.

*Agina* Turton 1822 p. 54; "is monotypic with *Mega purpurea* as sole sp. This is a *Saxicava* and therefore Gray was wrong in assigning genus to Corbulidae." H. E. VOKES 848.

Saxicavidae, review, ANON 71.

†*Panomya intermedia* sp. nov. Lower Miocene, Schmidt Peninsula, Sakhalin Island, I. P. KHOMENKO Trans. Geol. Oil Trust, Moscow, A 103 1938 pp. 50, 69, pl. xi.

## MYACEA.

"*Agina* Turton," Gray vide sub Saxicavacea, H. E. VOKES 848.

*Aloidis*, Meg. v. Mühlf. 1811 is an exact syn. of *Corbula* Lk., H. E. VOKES 848.

*Anisorhynchus* "Conrad." Meek 1871 and *Anisorhynchus* Conrad 1874, rejected because of *Anisorhynchus* Schoenk 1842; vide *Ursirivus* nom. nov., H. E. VOKES 848.

†*Anthracomya*, species of the Kolchugino series from Novaya-Osinovka region, I. V. LEBEDOV 539.

*Azara* Orb. 1839 type *Mya labiata* Maton, a syn. of *Erodona* Daudin in Bosc, H. E. VOKES 848.

Caryocorbulinae subfam. nov. of Corbulidae, includes genera as follow *Caryocorbula*, Gardner 1926; *Panamicorbula* Pils. 1932; *Varicorbula* Gr. &

Gale 1931; *Bothrocorbula* Gabb 1873; *Hexacorbula* Olss. 1932; *Notocorbula* Iredale 1930; *Anisocorbula* Iredale 1930; *Tenuicorbula* Olss 1932; *Bicorbula* Feischer 1887; *Ursirivus* Vokes 1945; *Cuneocorbula* Cossmann 1886; *Cuspicorbula* Olss. 1928; *Physoida* Palr. 1906; *Anapteris* van Winkle 1919, H. E. VOKES Bull. Amer. Mus. N. H. New York 86 1 1945 p. 11.

*Cercomya bröckelmanni*, Upper Steenbrück S.E. Münchenstein Basel, sp. nov., A. ERNI, Ecl. Geol. helv. 37 2 1944 p. 478, f. a, d; *C. pinguis* Ag. type [t.o.d.] of *Cercomya* (p. 476), A. ERNI 296; *[Corbula]* (*Cuneocorbula*) *dautzenbergi* nom. nov. for *Corbula lirata*, E. A. Smith non. Sow. and *C. nasuta* Dautz, non Sow., E. LAMY J. de Conch. 84 3 1941 p. 235; *C. striatissima* p. 141 nom. nov. for *C. striata* E. A. Smith non Lamarck; *C. laticostata* p. 142 nom. nov. for *C. roumei* Dautz. non *striata* Smith, Cont. faune. Malac. Apox Act. Soc. Linn. Bord. ixiv p. 146, E. LAMY, J. Conchyliol. Paris 84 2 1941; *C. woodae* nom. nov. for *C. equivalvis* Woods non Philippi, E. LAMY J. Conchyliol. Paris 84 2 1941 p. 130.

†*Corbula* (*Caryocorbula*) *conradi* sp. nov. p. 139, pl. 23, f. 27, 28, Yorktown formation, Miocene, 15½ m. above Bells Bridge on the Tar R. Edgecombe Co., S. Carolina; *C. (Caryocorbula) conradi retusa* subsp. nov. Yorktown formation ½-¾ m. below Edenhous Point, Bertie Co., N. Carolina, p. 140, pl. 23, f. 33, 34; *C. (Caryocorbula ?) scutata* sp. nov. Caloosahatchee marl, Pliocene Skell Creek, De Soto Co., Florida, p. 140, pl. 23, f. 26, 30-32, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943; †*C. (Tenuicorbula) equivalvis stainforthi* subsp. nov. Upper Miocene, Springvale, Trinidad, R. RUTSCH Verk. naturf. Ges. Basel 54 1943 p. 124, pl. iii, f. 8, 9.

*Corbulamellinae* subfam. nov., Corbulidae, including *Corbulamella* Meek & Hayden 1857, *Tiza* Greg. 1890, H. E. VOKES Bull. Amer. Mus. Nat. Hist. N.Y. 86 1 1945 p. 21.

Corbulidae, *Agina* "Turton" Gray 1847 *Aloidis* M. v. Müklf 1811, *Anisorhynchus* Conrad in Meek 1871 [*Anisorhynchus* is given by Conrad in 1874 so this spelling may be used], Azara Orb. 1839, *Corbulomya* Nyst. 1844, *Corburella* Lycett 1850, "Erodina

Daudin" Gray 1847, *Erodona* Daudin Bosc 1802, *Grippina* Dall 1912, *Harlea* Gray 1842, *Ostomya* Conrad 1874, *Potomomya* Sow. 1835, *Pteromya* Moore 1861, *Raleta* Gray 1842, *Taeniodon* Dkr. 1848, *Tenuicorbula* Olsson 1933, and *Tomala* Gray 1842 none of these genera is accepted by the author for various reasons, H. E. VOKES 848; Corbulidae—revision of the collection in the Mus. Hist. nat. Paris, E. LAMY 526; Corbulidae, Supraspecific groups, H. E. VOKES 848.

†*Corbulomima nuciformis* gen. et sp. nov. Corbulidae, Corbulinae, Aptian, Cretaceous Abeih Lebanon Mts., Republic of Lebanon, H. E. VOKES Bull. Amer. Mus. N. Hist. New York 86 1 1945 pp. 9-10, pl. 2, f. 5-8.

*Corbulomya* Nyst 1844 (type (Herrm.) *Corbula complanata* Sow.) a syn. of *Lentidium* Cris. & Jan, H. E. VOKES 848.

†*Demanetia* subgen. nov. of *Myalina* 1st. named sp. *Myalina (Demanetia) lodanensis* Frech. E. MAILLIEUX Mém. Mus. Hist. nat. Belg., 81 1937 pp. 16 104, pl. vi, f. 6.

"*Erodina* Daudin" Gray 1847 "an evident lapsus for *Erodona* Daudin in Bosc," H. E. VOKES 848.

*Erodona* Daudin in Bosc 1802 not "to be referred to the former family" [Corbulidae] hinge similar to that of *Spheniopsis* Sandbg. H. E. VOKES 848.

*Grippina* Dall Naut. 1912 25 p. 128; *G. californica* Dall, hinge allies this to Spheniopsidae, H. E. VOKES 848.

*Lentidiinae* subfam. nov. Corbulidae for *Lentidium* Cristof. & Jan. 1832, H. E. VOKES Bull. Amer. Mus. Nat. Hist. N.Y. 86 1 1945 p. 23.

*Mya arenaria* L. structure, M. HOOP 428; *Mya* Crystal style, J. JOHANSSON 473; *M. arenaria* L. in Holland, W. S. S. v. B. JUTTING 484; *M. arenaria*, W. SCHAFER 740.

†*Myalina doriiodoti* sp. nov. Namurian, Belgium, F. DAMANET Mém. Mus. Hist. nat. Belg. 97 1941 p. 73, pl. 1, f. 15 & text-figs. 18; †*M. (Demanetia) parvicostellata* sp. nov. Lower Devonian Coavin Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 16 105, pl. vi, f. 3 3a; †*M. (Myalina) drevermanni* nom. nov. [sp. nov.] = *Myalina* nov. sp. Drevermann 1904,

Lower Devonian Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 16 101, pl. viii, f. 5.

*Ostomya* Conrad 1874 (t.o.m. *O. papyria* Conrad Plioc. Upper Amazon), syn. of *Himella*, H. Ad. 1860, H. E. VOKES 848.

*Potomomya* Sow. 1835 a syn. of *Erodona*, H. E. VOKES 848.

†*Pteromya* Moore 1861 (t.s.d. Stol. 1870 *P. crowcombria* Moore) hinge unknown, but shell does not appear to differ from *Corbula*, H. E. VOKES 848.

*Semicorbula* Cossm. 1909, which sub. family of Corbulidae doubtful, H. E. VOKES.

†*Taeniodon* Dkr. 1848 [author follows Philipp and rejects genus as a member of the Corbulidae], H. E. VOKES 848.

†*Temucorbula* Olsson Bull. Amer. Paleont. 19 68 p. 244 error for *Tenuicorbula* Olsson 1932, H. E. VOKES 848.

*Tylophora* [gen nov. ? non. Pavesi (Arachn.) 1880] *rendelia* sp. nov. Devonian S.W. Eifel, Gebietes, Switzerland, S. SIMPSON Abh. senckenb. naturf. Ges. 447 1940 p. 44 pl. 4 f. 10.

*Ursirivus* nom. nov. for *Anisorhynchus* Conrad MS., Meek 1871 [1872 ?] = *Anisorhynchus* Conrad 1874, not *Anisorhynchus* Schoenherr 1842 (Coleopt.), H. E. VOKES Bull. Amer. Mus. nat. Hist. N.Y. 86 1 1945 p. 15.

#### ADESMACEA.

*Bankia* (*Bankia*) *canalis* sp. nov. Panama Canal, P. BARTSCH Smithsonian misc. Coll. 104 8 p. 1 pl. 1; *Bankia*, natural enemies, C. H. EDMUNDSON 288; *B. minima* Blv. *bipennata* Turt., F. ROCH 720.

*Barnea costata* ecological notes, collecting, B. R. BALES 91; *B. candida* L. H. SCHLESCH 761.

Pholadidae, review, ANON 71.

†*Pholas sinzovi* sp. nov. U.S.S.R. Sarmatian, V. P. KOLESNIKOV Paleont. U.S.S.R. Acad. Sci. 10 2 1935 pp. 125 364 pl. xix f. 3-7.

*Teredo*, natural enemies, C. H. EDMUNDSON 288; *Teredo*, F. MOLL 598; F. MOLL 599; F. ROCH 720; *T. maralis* L., *pedicellata* Oestrk. *utriculus* Get., *malleolus* Turt *megotara* Hurel *senegalensis* Blv., F. ROCH 720.

#### PANDORACEA.

†*Cochlodesam ochotensis* sp. nov. Lower Miocene, Schmidt Peninsula, Sakhalin Id., I. P. KHO MENKO Trans. Geol. Oil Trust A103 1938 pp. 52 70, pl. xiii, f. 6-8.

†*Pandora* (*Kennerlia*), p. 45 pl. 10 f. 21 24 26, Miocene  $\frac{1}{2}$  m. below Jones Point, Essex Co., Virginia; *P. (K.) naviculoides*, p. 46 pl. 10 f. 22 23, Pliocene, Neills Eddy Landing, Columbus Co., N. Carolina spp. nov., J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943; *Pandora* (*Clidiophora*) *crassidens majorina* subsp. nov. Miocene Halifax on Quankek Creek, Halifax Co., N. Carolina p. 47 pl. 10 f. 25 28, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943.

†*Thracia maddelysensis* sp. nov. Miocene Maddelys Bluff, Southampton Co., Virginia, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 44, pl. 10, f. 1 2.

#### CLAVAGELLACEA.

†*Brechites* (*Brechites*) *venustulus* sp. nov. Miocene Sarawak, C. BEETS Leidsche geol. Mededeel. 13 1942 (p. 329-533); *B. (Pseudobrechites) leognanum* in the Miocene of Aquitaine, A. MAGNE 569.

†*Clavagella dalpiazii* sp. nov. Oligocene Valle del Maso, S. VENZO Studi trentini Trento 22 3 1941 p. 185, pl. i, f. 12a b 13.

#### POROMYACEA.

†*Cuspidaria* (*Cardiomya*) *alkiensis* sp. nov. Oligocene N.-Western Washington, J. W. DURHAM Univ. Calif. Pub. Geol. 27 5 1944 pp. 122 142, pl. 13, f. 9.

†*Glycymeris menardi* (Desh.) var., *compressa* var. nov. Oligocene Valle Rapeliano, S. VENZO Stud. trentini Trento 22 3 1941 p. 183, pl. i, f. 10. 11a. b.

†*Neaera latecostata* sp. nov. Ramel, Upper Oligocene, J. GEORGES Dech.-Aiana Bonn 100en 1941 p. 171, pl. iii, f. 21 a. b.

†*Sphenotus* ? *pruvosti* sp. nov. Emsian Lower Devonian, Mormont Ardenne, E. MAILLIEUX Mém. Mus. Hist. nat. Belg. 81 1937 pp. 17 151, pl. x, f. 9 10.

†*Verticordia* (*Trigonulina*) *chowensis* Yorktown formation, Miocene Colerain Landing on the Chowan R.,



Bertie Co., N. Carolina, J. GARDNER Prof. Pap. U.S. Geol. Surv. 199a 1943 p. 51, pl. 10, f. 11 15.

†*Whitella aliena* sp. nov. Starfish Bed, Drummuck Group, Ladyburn, Girvan (Ordovician), F. R. C. REED Am. Mag. Nat. Hist. (11) 11 1944 p. 209 pl. ii f. 1 la 1b.

### Cephalopoda.

#### TETRABRANCHIATA.

#### NAUTILACEA.

†*Alaskoceras* gen. nov. Plectoceratidae type *Plectoceras sewardense* flower York district of Seward Peninsula, Alaska, A. K. MILLER & B. KUMMEL J. Paleont. Menasha, Wis. 19 2 1945 p. 126, pl. 17, f. 1-6.

†*Anglonautilus* Spath 1927 Cymatoceratidae genotype *Nautilus undulatus* Sow. Cretaceous, Genus described, A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 8.

†*Arkonoceras* gen. nov. Michelino-ceratidae, genotype *Orthoceras arkonnense* Whiteaves, R. H. FLOWER Amer. Midl. Nat. Notre Dame 33 3 1945 pp. 675, 683, 701, pl. 1, f. 4, 7 pl. 5 f. 1.

†*Centrolitoceras* gen. nov. pp. 576, 687, 705; Rutoceratidae, genotype *C. perplexum* sp. nov. pp. 675, 707 pl. 2, f. 2-4 from the Winnipegosis dolomite, Middle Devonian, Dawson Bay, Lake Winnipeg, Manitoba, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1944.

†*Cymatoceras loeblichli* sp. nov. Weno formation E. side of Fort Worth-Mansfield road 0.2 m. S.E. of Sycamore Creek, Tarrant Co., Texas, A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 6, pl. 2, f. 1-4; pl. 3, f. 3, 4; †*C. Hyatt* 1884 type *Nautilus pseudo-elegans* Orb., figs., A. K. MILLER & R. A. HARRIS 589.

*Cymatonautilus* Spath 1927, Cymatoceratidae, genotype *Nautilus julii*, Bangier, Upper Jurassic (Callovian), France, genus described, A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 9.

†*Diademoceras* gen. nov. Rutoceratidae, genotype *D. palmeri* sp. nov. Cherry Valley limestone, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 p. 687.

†*Eucymatoceras* Spath 1927, Cymatoceratidae, genotype *Nautilus plicatus* Fitton, Lower Cretaceous England; genus described, A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 9.

†*Exocyrtoceras reimanni* pp. 675, 717 pl. 3 f. 3-5; pl. 3 f. 3-5 from the uppermost Alpena limestone (Four Mile Dam formation, Alpena, Michigan; *E. minutum* pp. 675, 718 pl. 1 f. 1-3; Eversole's member of Columbus limestone at Eversole Run, near Columbus, Ohio; spp. nov. Devonian, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945.

†*Geisonocerooides* gen. nov. Pseudorthoceratidae Dolorthoceratinae genotype, R. H. FLOWER Bull. Amer. Paleont. 22 176 1-96, pl. 1-9, 1936.

*Goldringia* gen. nov. Rutoceratidae, genotype *Gyroceras cyclops* Hall, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 787, 709.

†*Goniaedyceras* gen. nov. Brevicoceratidae, genotype *Trochoceras pandion* Hall, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 716.

†*Gyronaedyceras* gen. nov. Brevicoceratidae, genotype *Gyroceras validum* Hall, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 716.

†*Hindeoceras* gen. nov. Rutoceratidae genotype *Gyroceras canadense* Whiteaves, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 688, 711.

†*Hipparionoceras* gen. nov. pp. 675, 719, Brevicoceratidae, genotype *H. iowaense*, sp. nov. pp. 675, 720, pl. 4, f. 1-2, basal part of Coralville limestone, Upper Devonian, Volga Valley railroad hill near Rosedalia, Iowa; †*H. ichnoides* pp. 675, 721, pl. 5, f. 2, Onondaga limestone, Lime Rock, Genesee Co., New York; *H. (?) lairdi* pp. 675, 722, pl. 5, f. 4-5 (Conewango group), S.E. corner North Union Township, Pennsylvania; spp. nov. Devonian, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945.

†*Michelinoceratidae* nom. nov. to include genera formerly assigned to Orthoceratidae, and orthochoeanitic genera previously included in Cycloceratotidae and Kionoceratidae,

R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 681.

†*Naedyceras gibbosum* pp. 675, 714, pl. 2, f. 1 Columbus limestone, Columbus, Ohio; *N. contractum* pp. 675, 715, pl. 1, f. 6, Delaware limestone, Dublin, Ohio; spp. nov. Middle Devonian, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945.

†Nautiloidea, the Cymatoceratidae of North America. A. K. MILLER & R. A. HARRIS 589.

†*Nautilus orbiculata* Tuomey referred to *Hercoglossa* by Miller & Thompson J. of Paleont. 1933, type-locality probably vicinity of Allenton Wilcox Co., Ala. W. McGLAMERY 563.

†*Ormoceras becraftense* sp. nov. Becraft limestone, of Kalkbery Ridge, Catskill, New York, Devonian, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 699, pl. 4, f. 3-4.

†*Paracymatoceras* Spath 1927 Cymatoceratidae, genotype *Nautilus asper* Oppel, Upper Jurassic, Moravia, genus described, A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 9, pl. 4, f. 1-3.

†*Procymatoceras* Spath 1927, Cymatoceratidae genotype *Nautilus subtruncatus* Morris & Lycett Jurassic [genus described], A. K. MILLER & R. A. HARRIS J. Paleont. Menasha, Wis. 19 1 1945 p. 11.

†*Spyroceras giganteum* sp. nov. from the Schoharie grit, Middle Devonian, Wolf Hill, Albany, Albany Co., N. York, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 703, pl. 5, f. 3.

†*Syrionautilus* Spath 1927 Cymatoceratidae, genotype *Nautilus libanoticus* Foord & Crick, Upper Cretaceous (Senonian) Syria; genus described, A. K. MILLER & R. A. HARRIS J. Paleont., Menasha, Wis. 19 1 1945 p. 11.

†Tetragonoceratidae fam. nov. with *Tetragonoceras*, *Nassanoceras* *Diadiplotoceras* and *Wellsoceras*, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 691.

†*Threarcoceras* gen. nov. pp. 675, 687, 710, Rutoceratidae, genotype; *T. inexpectans* sp. nov. pp. 675, 710, 711, pl. 1, f. 5, pl. 3, f. 1, 2, Columbus limestone, vicinity of Columbus, Ohio, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945.

†*Wellsoceras* gen. nov. Tetragonoceratidae genotype *gyroceras columbiense* Whitfield, R. H. FLOWER Amer. Midl. Nat., Notre Dame 33 3 1945 pp. 675, 692, 712.

## Dibranchiata.

## DECAPODA.

## SEPIACEA.

*Heteroteuthis serventyi* sp. nov. near Jervis Bay, S.E. New South Wales, Shallow, one specimen, J. ALLAN Rec. Aust. Mus. Sydney 21 6 1945 pp. 319 340, pl. xxvii, f. 22 23.

*Sepia elobyana* sp. nov. Eloby, W. Africa Holotype Zool. Mus. Hamburg (E.K.7453), W. ADAM Mem. Mus. Hist. nat. Belg. (2) 21 1940 p. 121, pl. iii, f. 5 text-fig. 12; *S. dollfusi* sp. nov. Red Sea, W. ADAM Bull. Mus. roy. Hist. nat. Belg. 17 62 Oct. 1941 p. 1, pl. ii, f. 3; *S. prashadi* Winckworth, W. ADAM 17; *S. pharaonis* Ehrenberg 1831; *S. gibba* Ehrenberg 1831 figs., W. ADAM 19; *S. savignyi* Blainville 1827, W. ADAM 20; *S. italica* Risso zebrina Risso, W. ADAM 22; *S. bertheloti* Orb. relative dimensions; *Sepia officinalis* geographic races *officinalis* L., *filliousxi* Lafont, *hierredda* Rang., *verniscalata* Q. & G., W. ADAM 28; Sepiidae, Rochebrune's species, a revision, W. ADAM 26; Sepiidae—Rochebrune's Monograph and names therein, W. ADAM 27.

*Sepiola elegans* Risso, W. ADAM 22.

*Sepioteuthis hemprichi*, Ehrenberg 1831 fig., W. ADAM 19.

## LOLIGINACEA.

†*Acroteuthis ? watsonensis* sp. nov. Watson Creek, 6 m. N. of Winslow Bridge, Western Glenn Co., California, Jurassic, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945 p. 989, pl. 8, f. 3.

*Alloteuthis subulata* Lk., figs., A. N. CH. TEN BROCK 163 *A. subulata* Lk., figs., W. SCHAFER 742.

*Doryteuthis arabica* Ehrenberg 1831, figs., W. ADAM 19.

*Lolidona* Risso *L. eupherosina*, W. ADAM 22.

*Loligo fusus* Risso, *urceolatus* Risso, *tertiarius* Risso, W. ADAM 22; *L. pealii* ovipositing, figs., B. BROWN 170.

*Loligopsis perlatus* Risso, W. ADAM 22.

*Lolimnites* Risso, *L. meridionalis* Risso, W. ADAM 22.

*Lolliguncula mercatoris* sp. nov. Bay of Nuderitz (Holotype Mus. roy. Hist. nat. Belg. (I.G.11.204), W. ADAM Mem. Mus. Hist. nat. Belg. (2) 21 1940 p. 125, pl. iii, f. 6 text-figs. 13-18.

*Uroteuthis* gen. nov. Loliginidae p. 21, type *U. bartschi* sp. nov. p. 22, Jolo Harbour, Jolo, Philippine Islands, H. A. REHDER Proc. Biol. Soc. Washington 58 1945 pl. iii.

### ARCHITEUTHACEA.

*Ctenopterygidae* fam. nov. (Cephalopoda) for *Ctenopteryx* Appellof (1889) olim *Bathyteuthidae*, J. ALLAN Rec. Aus. Mus. Sydney 21 6 1945 p. 328.

*Heteroteuthis serventyi* sp. nov. nr. Jervis Bay, S.E. New South Wales, one specimen, J. ALLAN Rec. Aust. Mus. 21 6 1945 p. 340, pl. xxvii, f. 22 23.

*Lycoteuthis diadema*, figs., a luminous squid, J. ALLAN 51.

*Onychoteuthis perlatus* Risso, W. ADAM 22.

*Pterygioteuthis giardi*, fig., a luminous squid, J. ALLAN 51.

*Watasenia scintillans*, fig., a luminous squid, J. ALLAN 51.

### BOLITAENACEA.

*Eledonella sheardi* sp. nov. near Cape Byron, N. coast New South Wales, one specimen, J. ALLAN Rec. Aust. Mus. Sydney 21 6 1945 pp. 320 345, pl. xxvi, f. 22-27.

### OCTOPODA.

#### OCTOPODACEA.

*Eledona* [= *Ozaena*] *moschata* Risso, *ambrosiaca* Risso, W. ADAM 22.

*Octopus bocki* Adam 1941 type specimen, figd., W. ADAM 12; *Octopus* on classification and distribution, W. ADAM 16; *O. niger*, Risso, *O. rufus* Risso, *O. cocco* Risso, *O. bitentaculatus* Risso, *O. tritentaculatus* Risso, *O. pilosus* Risso, *O. rabassin* Risso, *O. macropus* Risso, *O. tuberculatus* Risso, *O. violaceus* Risso, W. ADAM 22; *O. vulgaris* Lk. Anatomy, Nervous system, D. BOGORASE & P. CAZAL 151; *O. vulgaris* nervous system, D. BOGORASE & P. CAZAL 152; *O. vulgaris* Lk.

epistellary gland, figs., P. CAZAL & D. BOGORASE 195.

†*Palaeoctopus newboldi* (Sowerby 1846) Woodward, J. ROGER 725.

### ARGONAUTACEA.

*Argonauta minor* Risso, W. ADAM 22.

### BELEMNITACEA.

†*Ausseites* gen. nov. Aulacoceratidae replacing *Atractites*. . . characterized by a rostrum externally smooth type *Atractites ausseanus* Mojsisovics, R. H. FLOWER Amer. Midl. Nat. Notre Dame 33 3 1944 p. 760, pl. 1.

†*Belemnopsis californicus* Tones Creek Tehama Co., p. 990, pl. 1, f. 1; *B. tomsensis* Tones Creek, p. 990, pl. 1, f. 5; *B. napaensis* 3 m. N. of Knoxville, Napa Co., p. 990, pl. 2, f. 7; *B. mercurialis* 3 m. N. of Knoxville, p. 990, pl. 1, f. 2; *B. berryssae*, Capell Creek, p. 991, pl. 2, f. 8; *B. cachensis*, Davis Creek, a tributary of Cache Creek, Napa Co., p. 991, pl. 1, f. 6; *B. spiculoides*, 3 m. N. of Knoxville, Napa Co., p. 991, pl. 1, f. 3, Mesozoic California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

*Cylindroteuthis occidentalis* 6 m. N. of Winslow Bridge, Watson Creek, Western Glenn Co., p. 987, pl. 8, f. 12; *C. knoxvillensis*, loc. as last, p. 987, pl. 9, f. 2, pl. 10, f. 4a; *C. glennensis* p. 987 pl. 9, f. 1, pl. 10, f. 3; *C. klamathinae*, p. 988, pl. 8, f. 4; *C. porrectiformis*, p. 988, pl. 9, f. 3; *C. clavicula*, p. 989, pl. 9, f. 5 spp. nov. Watson Creek, Western Glenn Co.; *C. newvillensis* sp. nov. 2 m. S. of Paskenta, Southern Tehama Co.—Jurassic California. F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

†*Metabelemnites* gen. nov. Diploconidae Belemnoteuthidae, type *Atractites philippi* Hyatt and Smith, R. H. FLOWER Amer. Midl. Nat. Notre Dame 32 3 1944 p. 764.

*Ocythoe* Risso, *O. mezzaro* Risso, *O. velata* Risso, W. ADAM 22.

†*Vasseuria occidentalis* Mun.-Ch. in the Paris basin, L. & J. MORELLET 607.

### AMMONITACEA.

†*Acrocanites tornacensis* sp. nov. Dinantion, Carrière Delwarte, Pont-à-Rieu (Barges) S. of Citadelle de

Tournai, G. DELÉPINE Mém. Mus. Hist. nat. Belg. 91 1940 p. 30 pl. 1 f. 4-7 10, 11 text-fig. 4.

†*Albertoceras gracillimum* Mons formation, Fossil Mountain, Alberts p. 61 pl. 23 f. 15, 16; *A. minimum* Arbuckle Limestone between Ardmore and Davis, Oklahoma p. 62 f. 23 f. 17-25; *A. staufferi* Ellinburger Limestone, 5 m. N. of Cherokee, Texas, spp. nov. U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Anthraceroceras tenuispirale* sp. nov. Namurian, Belgium, F. DEMANET Mém. Mus. Hist. nat. Belg. 97 1941 p. 148 pl. vi f. 18 pl. vii f. 1, 2.

†*Asteroceras crassicosstatum* sp. nov. Ressaincourt near Raucourt, France, C. GÉRARD & G. GARDET Bull. Soc. Geol. Fr. (5) 8 7-8 1938 p. 573 pl. xxxiii f. 1. 1a.

†*Aulacosphinctes reedi* Watson Creek, p. 978 pl. 7 f. 3; pl. 6 f. 10; *A. jenkinsi* Watson Creek p. 979 pl. 13 f. 3; *A. taffi*, Grindstone Creek 1200 feet W. of iron bridge Winslow-Newville road, p. 979 pl. 7 f. 4 a, b; *A. diabloensis* near Mt. Diablo, Contra Costa Co. p. 980, pl. 2 f. 2; *Aulacosphinctes? colusaensis* west side of Bear Creek about 1.3 m. above mouth of Sulphur Creek, Western Calusa Co. p. 980 pl. 13 f. 1, 2; spp. nov. Upper Jurassic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

*Avaceras* gen. nov. Bassleroceratidae, type *A. elongatum* sp. nov. Jefferson City dolomite, near Mansfield Missouri p. 41 pl. 8 f. 10-12; *A. longidomum* Jefferson City dolomite 2½ m. N. of Ava road to Mansfield p. 42 pl. 8 f. 13; *A. magnisiphonatum* Jefferson City dolomite 2½ m. N. of Ava p. 42 pl. 8 f. 14, 15; *A. wellsense* upper Canadian, S.W. Cumberland City, Tennessee, p. 43 pl. 8 f. 1, 2; spp. nov. U., F., M. & U.; spec. Pap. Geol. Soc. Amer. 58 1944.

†*Baculites compressus* sp. nov. Cretaceous Saskatchewan, H. R. ROBINSON [abst. from paper only, no description] Trans. Roy. Soc. Can (3) 39 (List of Officers etc.) 1945 p. 150.

†*Bassleroceras bridgei* Roubidoux horizon 1 m. S. of Narrows, Giles Co. Virginia, p. 36 pl. 6 f. 6; *B. clelandi* Fribis Hill Limestone, Fort Hunter, N.Y., p. 36 pl. 7 f. 7, 8; *B. dalevillense* Cotter horizon 1½ m. N.W. Daleville,

Virginia p. 37, pl. 6 f. 1, 2; *B. Kayi* Basswood Creek Limestone near Mystic, Quebec, p. 37 pl. 48 f. 1, 2; *B. lasalense* Shakopee Dolomite, Black Ball Cement Works, La Salle, Illinois p. 38 pl. 5 f. 5, 6; *B. tenuiculum* Smithville formation 3-4 m. N.W. Smithville, Arkansas p. 40 pl. 7 f. 9, 10; spp. nov. U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

Bassleroceratidae fam. nov. for *Bassleroceras*, *Avaceras* gen. nov. [q.v.], *Diaphoroceras* gen. nov. *Dwightoceras*, *Dyscritoceras* *Lawrenceoceras* gen. nov. *Septocyrtoceras* gen. nov. *Monogonoceras* gen. nov. *Onychoceras* and *Stylocyrtoceras* gen. nov. U., F., M. & U. spec. Pap. Geol. Soc. Amer. 58 1944 p. 33.

†*Bathmoceras? tennesseense* sp. nov. Chepultepec Dolomite 2½ m. S.E. of Jefferson City, Tennessee U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 130 pl. 8 f. 3-8.

†*Beyrichoceras hodderense vallengense* var. nov. La Valle-Bouvignes p. 63 pl. iii f. 8-13 text-fig. 14; *B.ournieri* sp. nov. Halte de Houx, N. of Poilvache p. 57 pl. iv f. 1, 2, Dinantian, Belgium, G. DELÉPINE Mém. Mus. Hist. nat. Belg. 91 1940.

†*Brasilia (Lioceras) bradfordense* Buckman; Poitiers, P. A. GILLARD 375.

*Buttsoceras? odenvilleense*, Limestone, Odenville, Alabama, p. 64 pl. 17 f. 3-9; *B. vandiverense* Odenville Limestone, 6 m. W. of Vandiver, Alabama, p. 63 pl. 17 f. 10, 11; spp. nov. U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Catoraphiceras cushingi* Cotter horizon road between Ogdensburg and Morristown, New York p. 76 pl. 38 f. 17, 18; *C. osagense* Cotter Dolomite Osage Co., Missouri p. 77 pl. 37 f. 7, 8; *C. resseri* Sarback formation, N.E. spur of Fossil Mountain 7½ m. N.E. of Lake Louise, Alberta, p. 77 pl. 37 f. 4-6; spp. nov. U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Clelandoceras* gen. nov. *Cryptendoceratidae*, type *Clelandoceras elongatum* sp. nov. Smithville Limestone 2 m. N. of Smithville, Arkansas p. 134 pl. 3 f. 8-10; *C. breve* sp. nov. loc. as type p. 135 pl. 3 f. 6, 7 U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Clitendoceras mesleri* Powell Dolomite 8 m. S.W. of Ste. Genevieve,



Missouri p. 109 pl. 54 f. 2-6; **sp. nov.** U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Copiceras* **gen. nov.** Orthocerotidae, type *C. erectum* **sp. nov.** Smithville formation, near Graceland Mine, 4 m. N.W. of Smithville, Arkansas U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 65 pl. 25 f. 2-5 pl. 26 f. 5, 6.

*Cotteroceras buttsi* Cotter horizon  $\frac{1}{2}$  m. W. of Hansonville, Virginia p. 14 pl. 21 f. 7, 8; *C. cullisoni* Cotter Dolomite 5 m. N.W. of Chadwick, Missouri, p. 112 pl. 11 f. 18, 19; *C. gregeri* Roubidoux Missouri **spp. nov.** U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Cravenoceras darwenense* **sp. nov.** bank of R. Darwen, about 600 yards downstream from the bridge at Samlesbury Bottom nr. Blackburn, E. W. S. MOORE Proc. Journ. Geol. Soc. Leeds 25 5 1944 p. 333 pl. xx f. 1-5, text-fig..

†*Cunningtoniceras holtheri* **sp. nov.** Neogene Europe, A. ERNI Ecl. Geol. Helv. 37 2 1944 p. 470 pl. xi f. A-C; †*C. holtheri* **sp. nov.** Cenomanian, New Guinea, A. ERNI Verh. Schweiz-naturf. Ges. 124 1944 p. 122.

*Cycloceras purvesi* p. 107 pl. iii f. 9 text-fig. 28; *C. kionoforme* p. 108 pl. iii f. 10, 11 text-fig. 29; Namurian **spp. nov.** Belgium, F. DEMANET Mém. Mus. Hist. nat. Belg. 97 1941.

†*Cyptendoceras bridgei* Jefferson City Dolomite 8 m. S. of Chadwick, Missouri, p. 114 pl. 59 f. 10, 11; *C. campbelli* Cotter horizon, Brushy Hills,  $1\frac{1}{2}$  m. W. of Lexington, p. 114 pl. 58 f. 3, a; *C. depressum* Powell Dolomite between Cowan and Yellville, Arkansas p. 115 pl. 38 f. 1-6; *C. geneviensis* Powell Dolomite 8 m. S.W. of Ste. Genevieve p. 115 pl. 38 f. 15, 16; *C. mesleri* Powell Dolomite 8 m. S.W. of Ste. Genevieve p. 115 pl. 38 f. 12-14 pl. 60 f. 4, 5; *C. wellsense* Upper Canadian Wells Creek Basin, Tennessee p. 116 pl. 60 f. 6, 7; *C. Whitfieldi* = *Orthoceras sordidum* pars Whitfield 1890, non Billings, Cassin Limestone, near Fort Cassin, Vermont p. 116 pl. 59 f. 7 **spp. nov.** U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944

†*Cyptendocerina* **gen. nov.** Endoceratidae type *Orthoceras explorator* Billings, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 117 pl. 59 f. 8, 9.

†*Diaphoroceras* **gen. nov.** Bassleroceratidae, type *D. avansense* **sp. nov.** Jefferson City Dolomite 3 m. N. of Ava, Missouri, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 pl. 9 f. 4, 5; †*D. belli* Upper Ozarkian, nr. Point Levis, Quebec, p. 44 pl. 9 f. 7, 8; *D. buffaloense* Cotter Dolomite 1 m. E. of Buffalo, Missouri, p. 44 pl. 9 f. 1-3, **spp. nov.**, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Dimorphoceras serratum* **sp. nov.** Carboniferous Djerada, E. Morocco, G. DELÉPINE Notes and Mems. Serv. Micas. Geol. Maroc. 56 1941 pp. 13 74 pl. vi f. 32-35 text-fig. 14, 4.

†*Dresseroceras* **gen. nov.** Cyclostomiceratidae, type *D. corrugatum* **sp. nov.** Limestone boulder in the Levis Shale at Point Levis, Quebec, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 132 pl. 66 f. 6, 7.

†*Dyscritoceras* ? *oxfordense* Middle ? Canadian of Oxford Township, Ontario, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 47 pl. 9 f. 9.

*Ellesmeroceras higdonense* Gasconade Dolomite, 1 m. W. of Higdon, Missouri, p. 67 pl. 29 f. 12-14; *E. hotchkissi*, Oneota Dolomite near Trempealeau, Wisconsin, p. 67 pl. 29 f. 3-7; *E. luthi* Oneota Dolomite, near McGregor, Iowa, p. 68 pl. 29 f. 16-20; *E. thomasi*, Oneota Dolomite, near McGregor, Iowa, p. 68 pl. 29 f. 1, 2 **spp. nov.**, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

*Endoceras* ? *baylorense*, Upper Canadian, Baylor Mountains, Texas, p. 92 pl. 42 f. 1-5; *E. calvini* Oneota Dolomite near McGregor, Iowa, p. 93 pl. 49 f. 6; *E. ? knighti*, El Paso Limestone, Baylor Mountains, Texas, p. 97 pl. 51 f. 1; *E. ? lawrencense*, St. Joseph near Point Levis, opposite City of Quebec, p. 98 pl. 53 f. 8; *E. ? lamottense*, Light gray Chazy Limestone (Velcour ?) at Isle Lamotte, Vermont, p. 98 pl. 53 f. 1-3; *E. ? lagoni*, Upper Ozarkian, ? Point Levis, Quebec, p. 98 pl. 51 f. 2, 3; *E. ? philipsburgense*, Naylor Ledge Limestone near Philipsburg, Quebec, p. 99 pl. 49 f. 3, 4; *E. richardsoni*, Upper Ozarkian, Point Levis, Quebec, p. 100 pl. 12 f. 1, 2; *E. ? sansabaense*, Gasconade ? horizon,  $4\frac{1}{2}$  m. N. of Cherokee, San Saba, Texas, p. 101 pl. 29 f. 15; *E. trundlesense*, Cotter horizon, Trundles Cross Roads, near Seymour, Texas, p. 102 pl. 51

f. 13-15; *E. ? wappingerense*, Rochdale Limestone, Tennessee, p. 102 pl. 53 f. 1-5; *E. ? warthini*, Rochdale Limestone, Rochdale, New York, p. 103 pl. 49 f. 1 2; *E. yellvillense*, Pamell Dolomite near Cowan, Arkansas, p. 103 pl. 49 f. 5, **spp. nov.**, Palaeozoic, U.S.A., U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Endocycloceras* **gen. nov.** Endocycloceratinae, type *E. willsonae* **sp. nov.**, Upper Ozarkian, near Point Levis, Quebec, p. 31 pl. 3 f. 3-5; *E. legorense* Upper Ozarkian, 12 m. N. of Frederick, Maryland, p. 31 pl. 3 f. 11; *E. perannuatum*, 1 m. S.W. Jefferson, Tennessee, p. 32 pl. 3 f. 12 13; *E. subcurvatum*, 9 m. south of Mansfield, Missouri, p. 32 pl. 3 f. 1 2 **spp. nov.**, U., F., M. & U. Geol. Soc. Amer. Spec. Pap. 58 1944.

†Endocycloceratinae **fam. nov.** for *Endocycloceras* and *Vassaroceras* **genn. nov.**, q.v., U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 30.

*Eothinoceras* **gen. nov.**, Eothinoceratinae, type *E. americanum* **sp. nov.**, Rochdale, New York, Middle Canadian Rochdale Limestone, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 131 p. 67 f. 1-5.

†Eothinoceratinae **Fam. nov.** for *Eothinoceras* **gen. nov.** q.v., U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 130.

†*Gastrioceras crenulatum weristerense* **var. nov.** Westphalian, Charbonnager de Wériste, Belgium, F. DAMANET Mém. Mus. Hist. nat. Belg 101 1943 p. 132 pl. vii f. 1-18; *G. stenolobum* **sp. nov.**, N. of bassin of Djerada, Morocco, pp. 15 92 pl. vii f. 25-27 text-figs 20; *G. kernadidae*, S. of Mason Ogé, Kenadsa, pp. 26 93 pl. viii f. 9-11, Carboniferous Morocco, G. DELÉPINE Notes and Mems. Serv. Mines. Geol. Maroc.

†*Gattendorfia asiatica* 49 234 pl. v f. 1-3; *G. a subaperta*, 52 233 pl. v f. 4; *G. nuraensis*, 53 235 pl. vii f. 1-4; *G. oclusa*, 56 237 pl. vi f. 5-6; *G. o. applanata*, 59 238 pl. vi f. 7; *G. nazakhstanica*, 60 239 pl. vi f. 8 pl. vii f. 1; *G. reticulata*, 63 241 pl. vii f. 2 3 pl. viii f. 1-3 **spp. nov.** Carboniferous Kazakhstan, L. S. LIBROVITCH Paleont. U.S.S.R. Acad. Sci. 4 9 1 1940.

*Glaphyrites stenomphalum* **sp. nov.**, Carboniferous bassin of Kenadsa, Morocco, G. DELÉPINE Notes and Mem.

Serv. Geol. Maroc. p. 95 pl. viii f. 12-19 text-fig. 22.

†*Goniates orientalis*, pp. 152 287 pl. xx, f. 2 4 pl. xxi f. 1-3; *G. irtyskensis* pp. 162 296 pl. xxii f. 1-3 **spp. nov.** Carboniferous Kazakhstan, L. S. LIBROVITCH Paleont. U.S.S.R. Acad. Sci. 4 9 1 1940; †*Goniates* in New South Wales, G. DELÉPINE 262; *Goniates*, Namurian, R. G. S. HUDSON 440; †*Goniates*, H. SCHMIDT 769.

†*Gonioloboceras asiaticum* pp. 177 301 pl. xxiii f. 1-4 pl. xxiv f. 1; *G. (Milleroceras) atratum*, pp. 183 305 pl. xxiv f. 3 pl. xxv f. 1-3, **spp. nov.**, L. S. LIBROVITCH Paleont. U.S.S.R. Acad. Sci. 4 9 1 1940.

†*Haploceras pachecoense* **sp. nov.**, Hawk Rock, Pacheco Pass, middle Portlandian of Knoxville series, Jurassic California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945 p. 984 pl. 6 f. 8 a b.

†*Hibolites wilburensis* near mouth of Sulphur Creek, Colusa Co., p. 992 pl. 2 f. 5 6; *H. arroyoensis*, E. side of Davis Creek, p. 992 pl. 1 f. 4; *H. toroensis*, Old Creek, San Luis Obispo Co., p. 992 pl. 4 f. 9 **spp. nov.**, Upper Jurassic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

†*Holcostephanus midas*, p. 16 pl. i f. 1 a-c; *H. auritus* p. 18 pl. ii f. 1 a-c, **spp. nov.** Chacay-Melokué, Neaquéa, Valangimano, A. F. LEANZA Notas Naes Las Plata Paleont. 9 62 1944.

†*Homoceratoides complanatum* **sp. nov.** Oned Monater Carboniferous Morocco, G. DELÉPINE Notes and Mem. Serv. Mines Geol. Maroc. 56 1941 pp. 13 103 pl. vii f. 6-11.

†*Imitoceras rotiforme* **sp. nov.** Carboniferous Kazakhstan, L. S. LIBROVITCH Paleont. U.S.S.R. Acad. Sci. 4 9 1 1940 pp. v 24 222 pl. 11 f. 6.

†*Japonites kuerchoensis* **sp. nov.**, Amisic Tuias, Machangping, China, T. Y. HSU & T. C. TSENG Bull. Geol. Soc. China 22 3-4 1942 p. 208 text-fig. 1-3.

†*Jouaniceras* **subgen. nov.** of *Lytoceras*, subgenotype *L. sicardi* Grossouvre 1894 Amms. Craie sup. 1893 (1894) p. 223 pl. xxxvii f. 6 11 (type), E. BASSE Bull. Soc. Geol. Fr. (5) 9 1-2-3 1939 p. 43 pl. iii f. 3-7 text-fig. 1.

†*Karagandoceras* **gen. nov.** Goniatitidae type *K. galeatum* **sp. nov.** Carboniferous Kazakhstan, L. S. LIBROVITCH Paleont. U.S.S.R. Acad. Sci. 4 9 1 1940 pp. 88 90 252 254 pl. xi f. 1 text-fig. 31

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†*Kionoceras namurcense* **sp. nov.**, Namurian, Belgium, F. DAMANET Mém. Mus. Hist. nat. Belg. 97 1941 p. 119 pl. iv f. 6.

†*Knemiceras saadense* Thom. et Per. ? in the Vraconian of Salazac (Gard.), M. BREISTROFFER 160.

†*Kossmatia tahomaensis* near S. fork of Elder Creek, p. 981 pl. 2 f. 1a-c; *K. kleinsorgensis* 1 m. S. of Soledad ranch-house p. 982 pl. 2 f. 3, **spp. nov.** Mesozoic California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

†*Lawrenceoceras* **gen. nov.** Bassleroceratidae, type *L. collinsi* **sp. nov.** Limestone Boulder, Ozarkian, Point Levis, Quebec, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 48 pl. 7 f. 5 6.

†*Lenticeras andii asturiensis* **var. nov.** Cretaceous Asturias, E. BASSE Bull. Soc. géol. Fr. (5) 12 7 8 9 1942 p. 353 text-fig.

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†*Lytoceras huberti* **sp. nov.**, Watson Creek, 6 m. N. of the Winslow bridge, Western Glenn Co., Calif., Mesozoic, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945 p. 978 pl. 10 f. 6 a b; *Lytoceras* vide *Jouaniceras* **subgen. nov.**, E. BASSE 108.

†*Manitouoceras* **gen. nov.** Endoceratidae, type *M. gracile* **sp. nov.** Manitou

formation in Williams Canyon, Colorado, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 118 pl. 28 f. 3-7; *M. major* Manitou formation, Williams Canyon, Colorado, p. 118 pl. 28 f. 1 2, **spp. nov.**, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Marathonites uralensis* **sp. nov.** Upper Carboniferous, right bank of Ural River 2.5 km. N.W. of Ilinskaia Village, V. E. DREZHANSOV Trav. hist. Paleont. Acad. Sci. U.S.S.R. 11 3 1940 pp. 89 126 pl. vi f. 1-8 text-fig. 18 (p. 91).

†Marathonitidae **fam. nov.** included *Marathonites*, *Kargalites* and *Pseudovidrioceras*, V. E. RUZHANSEV Trav. l'hist. Paléont. Acad. Sci. U.R.S.S. 11 3 1940 pp. 81 124.

†*Mcqueenoceras franklinense* Upper Canadian, El Paso Limestone, Franklin Mountains, 5 m. N. of first canyon N. of El Paso, Texas, p. 119 pl. 50 f. 10; *M. newmanni* Cotter horizon, Jefferson City, Tennessee, p. 120 pl. 43 f. 18-22 **spp. nov.**, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Merocanites planorbis* **sp. nov.** Carboniferous, Djerada, E. Morocco, G. DELÉPINE Notes and Mem. Serv. Mines Geol. Maroc. 56 1941 pp. 27 44 pl. iii f. 1-4 text-fig. 6.

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†*Nautellipsites pseudoparallelus* sp. nov. Carboniferous Morocco, G. DELÉPINE Notes and Mems. Serv. Mines Geol. Maroc. 56 1941 pp. 9. 27 54 pl. iii f. 17-19.

†*Nuculoceras tenuistriatum* sp. nov. Namurian, Belgium, F. DAMANET Mém. Mus. Hist. nat. Belg. 97 1941 p. 129 pl. v, f. 3 4; †*N. djeradae* sp. nov. 8 km. E. of Oudja-Berghent road, S. of Djerada, Morocco, pp. 13 80 pl. vi f. 19-23; †*Agaiæ* sp. nov. Oued Agaia. S. of Djerada Morocco, pp. 16 81 pl. vi f. 24 25. Carboniferous, G. DELÉPINE Notes and Mém. Serv. Mines Géol. Maroc. 56 1941.

†*Ogygoceras* gen. nov. Orthocerotidae, type *Ogygoceras gracile* sp. nov. Smithville formation, 2 m. N. of Smithville, Arkansas, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 pp. 69 70 pl. 15 f. 1-4.

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†*Oppelia* (*Streblites*) *quintoensis* sp. nov. Hawk Rock, N. of Quinto Creek, western Stanislaus Co., Calif., F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945 p. 983 pl. 6 f. 9 a-c.

†*Oxfordoceras* gen. nov. Orthocerotidae, type *Oxfordoceras billingsi* sp. nov. = *Orthoceras ordinatum* (part) Billings 1865 = *O. ordinatum* Arni 1896, Middle ? Canadian Limestone in Oxford Township, Ontario, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 10 pl. 16 f. 3.

†*Oxycerites* genotype *Ammonites aspidoides* Appel. A. ERNI 297.

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†*Pachtoceras volchovi* sp. nov. Devonian Russia, D. V. NALIOKIN, In Faunae

Main Devonian Field (Pal. Inst. U.S.S.R. Acad. Sci.), 1 1941 pp. 255-262 pl. 1 f. 6.

†*Paraendoceras chadwickense* Cotter Dolomite, 4 m. S. of Chadwick, Missouri, p. 124 pl. 63 f. 6 7; *P. clinchburgettse* Cotter Dolomite 1 m. S. of Clinchburg, Virginia, p. 125 pl. 66 f. 3-5; *P. cullisoni* upper portion of Jefferson City, Dolomite, 10 m. S. of Ava, Missouri p. 125 pl. 65 f. 4 5; *P. dwighti*, Rochdale Limestone near Rochdale, New York, p. 125 pl. 2 f. 12 pl. 65 f. 3; *P. lewisense*, Upper Ozarkian, Point Levis, Quebec p. 126 pl. 65 f. 1 2; *P. rusti*, St. Armand Limestone N.W. of S. Armand, Quebec, p. 126 pl. 66 f. 1 2 spp. nov., U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†*Pericyclus princeps multiplicatus* var. nov., Chereq, Calonneon Vaulx. Dinantian, Belgian, G. DELÉPINE Mém. Mus. Hist. nat. Belg. 91 1940 p. 40 pl. 1 f. 16-19; †*P. asiaticus*, pp. 122 268 pl. xvi f. 1-6 pl. xvii f. 1-4; *P. a. simplex*, pp. 130 272 pl. xvii f. 5 6; *P. a. semirinvoluta*, pp. 131 272 pl. xvii f. 7 8; *P. tsoisaiguensis*, pp. 134 274 pl. xviii f. 1-4; *P. t. constricta*, pp. 136 276 pl. xviii f. 5 6; *P. dickotomus*, pp. 138 277 pl. xviii f. 7 8 pl. xix f. 3; *P. ? sokurensis*, pp. 141 279 pl. xix f. 1 2 pl. xx f. 1 spp. nov. Carboniferous Kazakhstan, L. S. LIBROVITCH Paleont. U.S.S.R., Acad. Sci. 4 9 1 1940.

†*Peritrochia skinneri* sp. nov. Permian, Upper part of Leonard formation at Clay Slide, Glass Mountains, Brewster Co., Texas, A. K. MILLER J. Paleont. Menasha, Wis. 19 1 1945 p. 18 pl. 7 f. 5 6 text-fig. 1.

†*Phylloceras timothyi* 'nom. nov.' [sp. nov.] 3 m. N.W. of Paskenta p. 976 pl. 6, f. 1, 2; *P. glennense* Watson Creek p. 976 pl. 11 f. 1, 2; *P. capellense* Capell Creek p. 977 pl. 4 f. 8: spp. nov. Upper Jurassic, California, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945.

†*Posidonia*, H. SCHMIDT 769.

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†*Pseudogastroceras cooperi* **sp. nov.** Permian ½ m. S.W. of Old World Ranch House in the Glass Mountains, Brewster Co., Texas, A. K. MILLER J. Paleont. Menasda, Wis. 15 1 1945 p. 15 pl. 6 f. 1, 2.

†*Robsonoceras manitouense* **sp. nov.** Manitou Limestone in Manitou Park, N.W. of Colorado Springs, Colorado, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 74 pl. 2 f. 13, 14.

†Robsonoceratidae **fam. nov.** with genus *Robsonoceras* Ulrich & Foerste 1936, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 73.

†*Rudolfoceras* **nom. nov.** for *Ozygoceras* Ruedemann 1906 (not Brusina 1882 (Gast.)) type *Orthoceras cornuoryx* Whitfield, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 55.

†*Rudolfoceras kindlei* p. 57, pl. 20 f. 1-3; *R. levisense* p. 57 pl. 18 f. 1-4; *R. subarcuatum* p. 58 pl. 16 f. 8-10; **spp. nov.** Limestone, Upper Ozarkian, Point Levis, Quebec, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

†Rudolfoceratidae **fam. nov.** with genera *Rudolfoceras* **nom. nov.** *Ectocycloceras*, and *Seelyoceras* all known representatives of Fam. come from the Canadian of Vermont and New York and the Upper Ozarkian of Quebec, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 55.

†*Scaphites senesseei* **sp. nov.** Upper Santonian (Cretaceous) Sougraigne La Jouane, France, E. BASSE Bull. Soc.

Géol. France (5) 9 1, 2, 3 1939 p. 50 pl. iii f. 11, 12; †*S. auritus* Schlüter figs. C. W. & E. V. WRIGHT 889.

Stemtonoceratidae **fam. nov.** for genera *Stemtonoceras*, and *Woosteroceras* U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 29.

†*Stylocyrtoceras* **gen. nov.** Bassleroceratidae, type *S. avansense* **sp. nov.** Jefferson City Dolomite 2½ m. N. of Ava, Missouri, U., F., M. & U. Geol. Soc. Amer. Spec. Pap. 58 1944 p. 54 pl. 10 f. 8, 9.

†*Substeueroeras stantoni* **sp. nov.** Watson Creek, Glenn Co., California, Megogoic, F. M. ANDERSON Bull. Geol. Soc. Amer. Washington D.C. 56 10 1945 p. 982 pl. 11 f. 3, 4; pl. 15 f. 3.

†*Vassaroceras* **gen. nov.** Endocycloceratidae, type *Orthoceras henrietta*, Dwight, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 32 pl. 4 r. 1-6.

†*Waagenina* Krotow 1888 **nov. emend.**, V. E. RUKMSIED Trav. Inst. Paleont Acad. Sci. U.S.S.R. 11 3 1940 p. 58.

†*Waagenoceras diencri* Böse fig., A. K. MILLER 588.

†*Walcottoceras obliquum*, Upper Ozarkian, Oneota Dolomite, Iowa **sp. nov.** Palaeozoic U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944 p. 89 pl. 45 f. 3-19; pl. 46 f. 3-11.

†*Woosteroceras* **gen. nov.**, Stemtonoceratidae, type *W. trempealeauense* **sp. nov.** Oneota Dolomite near Trempealeau, Wisconsin, U.S.A. p. 30 pl. 46 f. 13-15; *Woosteroceras cherokeeense* **sp. n.** Ellenburger Limestone, San Saba Co., Texas p. 30 pl. 46 f. 12, U., F., M. & U. Spec. Pap. Geol. Soc. Amer. 58 1944.

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*Anbullina* subgen. **nov.** not *Ambullina* Z.R. 74 p. 100.

*Annularez* subgen. **nov.** *Annularia* type, *A. intereisa* **sp. nov.**, TORRE & BARTSCH Pr. U.S.N. Mus. 89 pp. 282 352 1941.

†*Atraktus* sect. **nov.** of *Caricella* Conrad, type *C. leani* Dall, J. GARDNER.

*Avarua* **gen. nov.** not *Avanua* Z.R. 75 p. 112.

*Calocyrtoceras* **gen. nov.** type *Cyrtoceras cognatum* Barrande Syst. Sil. Boheme 1867, A. F. FOERSTE Bull. Soc. Lab. Den. Univ. *xxxi* Art. 2 1936 p. 59.

*Chedevillia* not *Chedvillia* Z.R. 79 p. 39.

*Dartoceras* **gen. nov.** type *D. nodosum* **sp. nov.** W. side of Malunis Cove, St. Daniel Bay, A. F. FOERSTE Bull. Soc. Lab. Den. Univ. *xxxi* Art. 2 1936 p. 60 pl. xviii f. 2.

*Dentimodiolus* **gen. nov.** not *Dentimodiolus* Z.R. 76 p. 116.

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†*Eomiodon* **gen. nov.** Carditidae type *Miodon semen* Cossmann Pétésyp. Monttien Belg. p. 56, A. CHAVAN Bull. Mus. R. H. Nat. Belg. 12 39 1936 p. 9 text-fig. 2.

†*Epidiceras* **gen. nov.** Jurassic Rudistidae 1st sp. *Diceras sinistrum* with *cotteau* and *eximium*, H. DOUVILLÉ Bull. Soc. Géol. France (5) 5 pp. 332, 356.

*Flemingella* Knight J. Pal. x 1936 p. 527 replaces *Flemingia* Koninck 1881 not Johnston 1845.

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†*Sawkinsia* **gen. nov.** Carditidae type *S. matleyi* **sp. nov.** Geol. Dep. Buthena Tertiary, Jamaica, L. R. Cox Proc. Malac. Soc. 24 4 1940 p. 140 pl. 9 f. 7–9 pl. 10 f. 10–13.

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# 10. CRUSTACEA

ARRANGED BY

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# II. TRILOBITA

ARRANGED BY

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## STRUCTURE

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type. Parts of trilobitan appendages may be reduced, those of anterior and posterior somites may be more strongly modified." Nothing definite known of the origin of the Trilobitomorpha but generally thought to have evolved "from polychaete or more primitive annelids." Arachnomorpha termed a "phylum" of equal taxonomic value to Myriapoda-Insecta, Crustacea and Pantopoda, STØRMER 110.

**General Evolution of Group.**—Protoparia most primitive order, by retardation of dorsal development of pre-antennal segment Opisthoparia evolved, by further dorsal retardation of this segment come the Proparia, so "although the opisthoparians pass through a proparian stage of development the Opisthoparia are more primitive than the Proparia," STØRMER 108.

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**II. Hypoparia.**—Beecher's order provisionally maintained and regarded as an early offshoot of Protoparia defined as "Trilobites with marginal, supra-marginal or ventromarginal? suture; lateral eyes absent or little developed; protaspis broad with preantennal segment probably well developed on dorsal side; intergenal spines absent in Meraspid and later Periods. Middle Cambrian?—Upper Devonian. Superfamilies: Cryptolithidae, Harpidae, Raphiophoridae?, Agnostidae?, Shumardiidae?"

**III. Opisthoparia.**—"Trilobites with facial suture crossing the margin behind genal angles, at the corners of which genal spines might occur; protaspis with preantennal segment slightly or not developed on dorsal side; intergenal spines present in the Metaprotaspis and Meraspid Periods. Lower Cambrian—Permian. All remaining superfamilies exclusive of the Proparia."

**IV. Proparia.**—"Trilobites with facial suture crossing the margin in front of genal angles, at the corner of which intergenal spines might occur; protaspis with preantennal segment not developed on dorsal side, intergenal spines present in Metaprotaspis and later Periods. Lower Cambrian—Lower Carboniferous. Superfamilies: Eodiscidae, Norwoodiidae, Burlingidae, Phacopidae." STØRMER 108.

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**Tremadoc.**—Sweden (Östergötland and Närke), WESTERGÅRD 122.—(Scania), WESTERGÅRD 124, 125.—(Öland), WESTERGÅRD, 126.—Sweden, THORS-  
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**Ordovician.**—Britain (Shropshire), LAMONT 41.—Britain and Eire, LAMONT 42.—Britain (Scotland), Estonia and Baltic States, BEGG 11.—Canada (Quebec and Ontario), OKULITCH 53.—China, SUN 114.—France, PÉNEAU 55.—Germany, BEYER 13, 14, 15.—Germany, VOLK 121.—N. America, FRITZ 29.—Norway, GRORUD 31.—Norway, STØRMER 109.—Sweden, THORS-  
LUND 117.—Sweden (Östergötland and Närke), WESTERGÅRD 122.

**Ordovician (Lower).**—Canada (Quebec), RASETTI 69.—Eire, REED 72, 73.—Sweden (Öland), REGNÉLL 75, 76.—U.S.A. (Missouri and Arkansas), CUL-  
LISON 21.

**Ordovician (Middle).**—Canada, LA-  
VERDIÈRE & LAVALLÉE 43.

**Ordovician (Upper).**—Britain (Scotland), REED & BEGG 74.—Canada (Quebec), KINDLE 38.—Norway (Hadeland), STØRMER 111.—Sweden (Jämtland), THORS-  
LUND 118.

**Silurian.**—Canada (Quebec), KINDLE 37.—N. America, FRITZ 29.—Sweden (Jämtland), THORSUND 117.—U.S.A. (Maine), WILLARD 128.—U.S.A. (Wis.), MONTAGUE 52.

**Silurian (Lower).**—Sweden (Jämtland), THORSUND 118.

**Silurian (Upper).**—Australia (Victoria), GILL 30.—Germany (Pomerania), DAHLGRÜN & SEITZ 22.—Portugal, CARRINGTON DA COSTA 19.

**Devonian.**—Morocco, R. & E. RICHTER 94.—N. America, FRITZ 29.—U.S.A. (N.Y.), REIMANN 77.—U.S.A. (Wis.), MONTAGUE 52.—Uruguay, LAMBERT 40.

**Devonian (Lower).**—Australia (Victoria), GILL 30.—Canada (Quebec), CLARK 20.—Canada, LEPAGE 45.—China (Yunnan), LEE & YEH 44.—Germany, DAHMER 23, 26.—KUTSCHER 39.—LORENZ 46.—R. & E. RICHTER 93.—W. E. SCHMIDT 97.—S. SIMPSON 104.—SOLLE 105, 107.—Morocco, LE MAITRE 49.

**Devonian (Middle).**—Germany, LORENZ 46.—SOLLE 106.—R. & E. RICHTER 92.—THIENHAUS 116.—Gold Coast, A. M. DAVIES in JUNNER 36.

**Devonian (Upper).**—France, BÖHM 16.—Germany, PAUL 54.

**Carboniferous (Lower = Etroeungt Beds).**—Germany, PAUL 54.

**Carboniferous (Lower).**—Britain (Derbyshire), STUBBLEFIELD in HUDSON & COTTON 34.—Britain (Yorks), STUBBLEFIELD 112.—France, BÖHM 16.—Germany, H. SCHMIDT 95.—U.S.A. (Missouri), WILLIAMS 129.

**Carboniferous (Upper).**—Britain (Staffordshire), STUBBLEFIELD 113.

### III.—SYSTEMATIC INDEX.

N.B.—The numbers in large Clarendon type refer to the list of Titles where the full reference will be found; those in small Clarendon type to the volume number of the reference. Since all the species of the group are fossil, the † used elsewhere in the Zoological Record to indicate fossils is here omitted.

*Acaste downingiae* (Murchison) in Silurian of German (Pomerania) borehole p. 89, DAHLGRÜN & SEITZ 22.

*Acaste cf. nolens* (Rud. Richter) p. 117 text-fig. 3a-e, W. E. SCHMIDT 97.

*Acaste schmidtii* R. Richter, p. 2 text figs. 12a, b, 13, DAHMER 26.

*Acaste (Calmonia) signifer* Clarke p. 30, A. (C.) *signifer brevicaudata* Méndez-Alzola pl. v fig. 4, LAMBERT 40.

*Achatella achates* (Billings), p. 104 pl. i fig. 1, OKULITCH 53.

*Acheilus spinosus* p. 463 pl. lx, fig. 2, *A. convexus* p. 463 pl. lx figs. 3-7, *A. triangularis* p. 463 pl. lx fig. 8, *A. marginatus* p. 463 pl. lx figs. 9-13 Cambrian (Upper) Canada (Quebec), RASETTI J. Paleont. 19 5 1945.

*Acheilus latus* Rasetti 1944 complete cephalon figured and described p. 119 pl. i, figs. 1-2, *A. gibbus* Rasetti 1944 likewise p. 120 pl. i figs. 3-4, RASETTI 67.

*Acidaspis danai* Hall & *A. idu* Winchell and Marcy referred to synonymy of *Ceratocephala goniat* Warder p. 531 pl. lxxix figs. 4, 5, KINDLE 37.

*Acidaspis* ? sp. Reed 1909 p. 148 pl. vi fig. 8 reidentified as *Plomerops* (*Protoplomerops*) cf. *primigenus* (Angelin) p. 58, REED 72.

Agnostidea (Salter 1862) considered as superfamily to include Agnostidae (McCoy 1849) and Eodiscidae (Gürich 1907) Raymond 1913; Suborder Oligomera-Isopygia Gürich 1907, Suborder Miomera Jaekel 1909, Superfamily Eodiscidea R. Richter 1932, Order Agnostida (Kobayashi 1935) Kobayashi 1939 considered as synonyms, p. 16, R. & E. RICHTER 89.

*Agnostus intermedius* Tullberg, considered as possible synonym of *A. atavus* Tullberg, referred to *Triplagnostus* p. 62, WESTERGÅRD 122.

*Agnostus pisiformis* doubt expressed as to whether not really Middle rather than Upper Cambrian in age p. 16 WESTERGÅRD 124.

"*Agnostus*" sp. p. 39 pl. i fig. 3 Cambrian (Upper) Sweden (Scania) WESTERGÅRD Afh. Sver. geol. Undersök. (C) 459 I 1944.

*Agraulos* cf. *holocephalus* Matthew p. 385 pl. xxiv figs. 21a, b Germany, W. E. SCHMIDT 96.

*Amecephalina argentina* revised description and generic assignation for *Arethusina argentina* Kayser 1876 p. 208 pl. i figs. 1-3 text-fig. 1 holotype refigured, HARRINGTON & LEANZA 33.

*Ampyx* ? *aculeatus* Angelin p. 153 pl. ix figs. 10-11 THORSUND 117.

*Ampyx volborthi* p. 4 text-fig. 4 in ÖLAND, REGNÉL 76.

*Anchiopella* Reed 1907 genotype by original definition *Calymene anchiops* Green 1832; has as tautotypic synonym, *Anchiopsis* Delo 1935 p. 174, R. & E. RICHTER 93.

*Anchiopsis* Delo 1935 genotype *Calymene anchiops* Green 1832 invalid because a tautotypic synonym of *Anchiopella* Reed 1907 p. 174, R. & E. RICHTER 93.

*Andrärina* Raymond 1937 (pro *Liostracus* Angelin 1854) genus discussed p. 369, *A. tenera* (Hartt) p. 370 pl. xxii figs. 18-20 pl. xxiii figs. 1-3, 5-9, *A. quadrata* revised generic reference for *Conocephalites* q. Hartt p. 373 pl. xxiii figs. 4, 10, 15 Germany, W. E. SCHMIDT 96.

*Anomocare campbelli* King referred to *Palaeolenus* Mansuy [quod vide], R. & E. RICHTER 90.

Cf. *Anomocarina excavata* (Angelin) p. 378 pl. xxii fig. 17 Germany, W. E. SCHMIDT 96.

Cf. *Anomocarioides limbata* [limbatus on explanation of plate] (Angelin) p. 377 pl. xxii fig. 16 Germany, W. E. SCHMIDT 96.

*Apatokephaloides rotundatus* sp. n. p. 465 pl. lx, figs. 15, 16, *A. pauper* (Billings) p. 465 pl. lx, fig. 14 Cambrian (Upper) Canada (Quebec), RASETTI J. Paleont. 19 5 1945.

*Arethusina argentina* Kayser description revised and referred to *Amecephalina* p. 208 pl. i figs. 1-3 text-fig. 1, HARRINGTON & LEANZA 33.

*Asaphus* sp. p. 137 pl. ix fig. 4, *A. nieszkowskii* F. Schmidt p. 136 pl. v figs. 8-13 Ordovician Sweden, THORSUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Asteropyge* (*Asteropyge*) *lips* sp. n. p. 150 pl. v figs. 2-3, *A. (Metacanthus)* ? sp. p. 153, *A. (subg. ?)* sp. A p. 153 pl. v, figs. 4-5, *A. sp. B* p. 153 pl. v fig. 6, *A. (subg. ?)* sp. p. 154 Devonian Morocco, *A. (A.) prorotundifrons* sp. n. p. 175 pl. vii figs. 1-3 text-fig. 7, *A. (A.)*

*boopis* (R. Richter) lectotype selected p. 174 pl. vi figs. 1-4 text-fig. 6, *A. (A.) drevermanni* revised generic reference, for *Cryphaeus* d. R. Richter, lectotype selected p. 175 pl. vi figs. 5-8 text-fig. 9, *A. (A.) rotundifrons* revised generic reference for *Cryphaeus rotundifrons* (Emmrich) p. 176 pl. vii figs. 4-6 text-figs. 8, 10, 11, *A. (Rhenops)* subgen. n. for type *A. (R.) anserina* R. & E. RICHTER 1916 p. 177 pl. viii, figs. 1-3 text-fig. 5, *A. (R.) index* sp. n. p. 179 pl. viii, fig. 4; *A. (Kayserops)* *kochi* (Kayser) ? p. 180 pl. viii fig. 5, *A. (K. ?) diadema* revised generic reference for *Cryphaeus* d. R. Richter p. 180 pl. vii figs. 7, 8 text-fig. 4; *A. (Comura)* *cometa* p. 181 pl. viii fig. 6 Devonian Germany R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Asteropyge gdoumontensis* \* Asselberghs referred to *Cryphina* ? p. 160, *A. (Metacryphaeus)* Reed 1907 lectotype selected *Phacops ocellus* Lake 1904 p. 175, R. & E. RICHTER 93.

*Atops* ? *calanus* sp. n. Cambrian (Lower) Spain (Andalusia) p. 55 pl. iii fig. 41, pl. iv fig. 63, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 455 1941.

*Aulacodiscus bilobatus* nom. nud. p. 33 Cambrian (Middle) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1 1944.

*Austinivillia bicensis* Resser p. 317 pl. ii figs. 1-4, RASETTI 69.

*Bailiella* genus discussed p. 363, *B. gemina* sp. n. p. 367 pl. xxiv figs. 11-13, *B. heberti* (Munier Chalmas & Bergeron) p. 364, pl. xxiii, figs. 20-23 pl. xxiv figs. 1-5, *B. cf. lyelli* (Hicks) p. 366 pl. xxiv figs. 7-10 Cambrian (Middle) Germany (Prussia), W. E. SCHMIDT Jahr. Reichsamts für Bodensforsch. für 1941 62 1944. [All the above species referred to *Conocoryphe* (*Bailiella*) on explanation of plates.]

*Basidechenella* see ? *Dalmanites* cf. *patacamayaensis*.

*Bathyporellus ornatus* sp. n. for *Niobe* sp. Reed 1910 pl. xxii figs. 3a, b, Ordovician (Lower) Eire p. 61, *B. glensaulensis* p. 60, REED Geol. Mag., 82 2 1945.

*Bathyporellus permarginatus* [spelt *permarginatus* on explanation of plate] sp. n. Ordovician (Lower) U.S.A. (Missouri) p. 70 pl. xxiv figs. 23, 24, CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

Bathyruridae see *Bathyurellus*, *Bolbocephalus*, *Jeffersonia*, *Lutesvillia* **gen. n.**

*Bathyrurus* ? *lajensis* Kayser referred to *Ekmania* p. 210, *B. ? obignyanus* and *B. ?* sp. indet. Kayser 1876 referred to *Eteraspis* p. 213, HARRINGTON & LEANZA 33.

*Bathyrurus* ? *reynoldsi* **sp. n.** for *Bathyrurus* cf. *timon* Reed 1910 p. 275 pl. xxi fig. 5, figure admitted to be incorrect and new description given, p. 61, *B. cf. nero* Reed 1910 p. 275 pl. xxi figs. 4a, 4b non Billings reidentified as *Petigurus* ? cf. *crassicornis* Poulsen p. 62, Ordovician (Lower) Eire, REED *Geol. Mag.* 82 2 1945.

*Battus* see *Mesospheniscus* and *Platynostus*.

*Bayfieldia ulrichi* **sp. n.** Cambrian (Upper) Canada (Quebec) p. 465 pl. lx, figs. 17-19, RASETTI J. *Paleont.* 19 5 1945.

*Bellaspidea* **gen. n.** [resembles *Bellaspis*] for type, *B. resseri* **sp. n.** p. 465 pl. lx figs. 20, 22, *B. minor* p. 466 pl. lx figs. 23, 24, *B. ? latifrons* p. 466 pl. lx figs. 25-27 **spp. n.** Cambrian (Upper) Canada (Quebec), RASETTI J. *Paleont.* 19 5 1945.

*Bellaspis* **gen. n.** [resembles *Bellaspidea* on *Ptychoparia-Solenopleura* plan] for type, *B. billingsi* **sp. n.** p. 466 pl. lx figs. 34-36, *B. ? tuberculata* p. 467 pl. lx figs. 30, 31, *B. ? granulata* p. 467 pl. lx figs. 28, 29, *B. ? ulrichi* p. 467 pl. lx figs. 32, 33, **spp. n.** Cambrian (Upper) Canada (Quebec), RASETTI J. *Paleont.* 19 5 1945.

*Bigotina* Cobbold 1935 considered to be possibly a synonym of *Protolenis* Matthew 1892 p. 41, R. & E. RICHTER 89.

*Blayacina* Cobbold 1931 considered to be a synonym of *Protolenis* Matthew 1892 p. 41, R. & E. RICHTER 89.

*Bolbocephalus* referred to Bathyruridae, *B. jeffersonensis* p. 77 pl. xxxiv figs. 28, 29, *B. st. clairi* p. 78 pl. xxxv figs. 27-31 **spp. n.** Ordovician (Lower) U.S.A. (Missouri), CULLISON *Bull. Univ. Missouri School of Mines & Metallurgy* 15 2 1944.

*Bonnia* sp. undet. p. 316 pl. i figs. 20-22 Cambrian (Lower) Canada (Quebec), RASETTI *Amer. J. Sci.* 243 6 1945.

*Bonniella* Resser 1937 accepted as a member of *Corynexochidae* (Dorypyginae), *B. ? hispanica* **sp. n.** p. 36 pl. iii figs. 42, 43, 45 ? 44, pl. iv fig. 64 relationship of this species with *Hicksia* Delgado discussed p. 38 Cambrian (Lower) Spain (Andalusia), R. & E. RICHTER *Abh. senckenberg. naturf. Ges.* 455 1941.

*Brachymetopus* ? *spinosiformis* **sp. n.** Carboniferous (Lower) U.S.A. (Missouri) p. 111 pl. ix fig. 68, *B. stratton-porteri* Moore 1928 referred to *Proetides* ? [quod vide] p. 110, WILLIAMS *Prof. Pap. U.S. Geol. Surv.* 203 1943.

*Brachymetopus* cf. **sp. n.** 3 Weber p. 228 STUBBLEFIELD 112.

*Brachymetopus* sp. recorded for first time in Coal Measures of Britain p. 47, STUBBLEFIELD 113.

*Bronteopsis concentrica* p. 139 pl. vi fig. 11 revised generic reference for *Ogygia* ? c. Linnarsson, THORSLUND 117.

*Bronteus pompilius* Billings *partim* termed *Scutellum* p. 529 pl. lxix figs. 1-3, KINDLE 37.

*Bumastus insignis* (Hall) p. 64 text-fig. 6, BALL 9.

*Callavia* ? *lotzei* **sp. n.** Cambrian (Lower) Spain (Andalusia) p. 34 pl. iii figs. 36-40 pl. iv fig. 66, *C. ? choffati* revised generic reference for *Paradoxides choffati* Delgado occurring in Portugal p. 62, R. & E. RICHTER *Abh. senckenberg. naturf. Ges.* 455 1941.

*Calliops huronensis* p. 99 pl. i figs. 7-9 (Quebec), *C. narrawayi* p. 100 pl. i figs. 5, 6, *C. alatus* p. 101 pl. i fig. 4 (Ontario) **spp. n.** Ordovician Canada, OKULITCH *Trans. R. Soc. Canada* [3] 36 section 4 1942.

*Calliops* ? **sp. n.** p. 419 pl. ii fig. 9 Ordovician Norway, STØRMER *Norsk geol. Tidsskr.* 25 1945.

Calmoninae Delo 1935 must lapse because *Calmonia* is nearly related to *Asteropyge* which belongs to Dalmanitidae (Asteropyginae) Delo; as also Pennaia Clarke, *Anchiopella* Reed has no close relationship to *Calmonia* but belongs to Dalmanitidae, not as stated by Delo to Phacopidae (Calmoninae) p. 174, R. & E. RICHTER 93.

*Calodiscus* Howell 1935 considered as synonym of *Eodiscus* (*Eodiscus*) p. 22, R. & E. RICHTER 89.



*Calymene bowiei* p. 172 pl. vii figs. 1, 2, 6 text-fig. 1A, 1G, *C. killarensis* p. 174 pl. vii figs. 3, 4, 8 text-fig. 1B, 1H spp. n. Devonian (Lower) Australia (Victoria), GILL Proc. R. Soc. Victoria N.S. 56 2 1945.

*Calymene browni* sp. n. Devonian (Lower) Canada (Quebec) p. 33 pl. i figs. 25-27, CLARK Trans. R. Soc. Canada [3] 36 1942.

*Calymene blumenbachi* name allocated by Stubblefield to one of figures of *Trinucleum* in letter from Lhwyd to Rivinus (1698) published Lithophylacii Brit. Ichnographia, 1790 [sic], facsimile of figure reproduced p. 358, GUNTHER 32.

*Calymene blumenbachi* Brongniart p. 89 in Silurian of German (Pomerania) borehole p. 89, DAHLGRÜN & SEITZ 22.

*Calymene celebra* Raymond p. 64 text-figs. 1-3, BALL 9.

*Calymene curvicauda* sp. n. Devonian (Lower) Morocco p. 155 pl. iv fig. 10, R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Calymmene* ? [sic] *maloungkaensis* Mansuy p. 278, LEE & YEH 44.

Calymenidae see *Gravicalymene*, *Flexicalymene* and *Reacalymene*.

*Calypptaulex norvegicus* sp. n. p. 417 pl. iv figs. 2, 3, *C. sp.* p. 418 pl. iv fig. 10 Ordovician (Upper) Norway (Hadeland) STØRMER Norsk geol. Tidsskr. 25 1945.

*Calypptaulex ottawanus* sp. n. p. 102 pl. i figs. 2, 3, *C. harrisi* p. 102 pl. i fig. 14 new generic reference for *Pterygometopus h.* Okulitch 1935 Ordovician Canada (Quebec), OKULITCH Trans. R. Soc. Canada [3] 36 section 4 1942.

*Camaraspis* Ulrich 1924 genus discussed p. 44 *C. guillermoi* p. 44 pl. iii figs. 64-67 pl. v fig. g, text-fig. 4g; *C. onyx* p. 46 pl. iii figs. 68-73 pl. v fig. h, text-fig. 4h spp. n. *C. ? pradoana* (Verneuil & Barrande) p. 47 Cambrian (Upper) Spain (Andalusia), R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

Campylopleuri Burmeister 1843 taken as synonym of Conocoryphidae Angelin p. 50, R. & E. RICHTER 89.

*Ceratocephala asklundi* sp. n. Ordovician Sweden (Jemtland) p. 154 pl. vi fig. 14, THORSUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Ceratocephala goniata* Warder discussed and interpreted to include *Acidaspis danai* Hall & *A. ida* Winchell and Marcy p. 531 pl. lxi figs. 4, 5, KINDLE 37.

*Ceratocephala* sp. p. 33 Devonian (Lower) Canada, CLARK 20.

*Chasmops sigmoocularis* sp. n. Ordovician (Upper) Canada (Ontario) p. 103 pl. i figs. 10-13, OKULITCH Trans. R. Soc. Canada [3] 36 section 4 1942.

*Chasmops conicophthalma* (Sars & Boeck, MS.) p. 160 text-figs. 2c, d, GRORUD 31.

*Chasmops maximus* Schmidt p. 419 pl. ii figs. 1-5, *C. eichvaldi* Schmidt p. 421 pl. iii figs. 1-10, *C. sp.* p. 423 pl. iv figs. 13, 14 Ordovician (Upper) Norway, STØRMER Norsk geol. Tidsskr. 25 1945.

*Cheirurus gibbus* Beyrich recorded from Devonian of Morocco p. 201, LE MAITRE 49.

*Cheirurus tarquinius* Billings p. 532 pl. lxxviii figs. 1-5, KINDLE 37.

*Cheirurus niagarensis* (Hall) p. 64 text-fig. 4, 5, BALL 9.

*Comura* see *Asteropyge*.

*Condylopyge spinigera* sp. n. Cambrian (Middle) Sweden (Scania) p. 23, WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1 1944.

*Condylopyge rex* (Barrande) p. 354 pl. xxi figs. 15-17, *C. regia* (Sjögren) p. 355 pl. xxi figs. 18, 19 Germany, W. E. SCHMIDT 96.

*Conocoryphe* sp. indet. pygidium p. 368 pl. xxiv fig. 6 Cambrian (Middle) Germany (Prussia), W. E. SCHMIDT Jahr. Reichsamts für Bodenforsch. für 1941 62 1944 see also *Bailiella*.

Conocoryphidae Angelin 1854 discussed p. 50 Campylopleuri Burmeister 1843, Conocophalidae Salter 1862, Reed 1925, Ptychopariidae Matthew 1887, taken as synonyms p. 50, R. & E. RICHTER 89.

Conocoryphidea (Swinnerton 1915) nov. emend. as superfamily p. 50, suborder Conocoryphida Swinnerton 1915, superfamily Ptychopariidea R. Richter 1932, suborder Ptychoparida Kobayashi 1935 partim [excl. Ellipsocephalidea and Calymenidea] taken as synonyms p. 50, R. & E. RICHTER 89.

Corynexochidae Angelin 1854 taken to include Dorypyginae Kobayashi 1935 p. 35, R. & E. RICHTER 89.

*Corynexochidea* (Rud. Richter 1932, Kobayashi 1935) accepted as superfamily to receive as synonyms superfamily Bathyriscidea R. Richter 1932 and suborder Corynexochida Kobayashi 1935 p. 35, R. & E. RICHTER 89.

*Crepicephalus edwardsi* nom. nov. for *C. oweni* Raasch 1943 non Meek & Hayden 1861 p. 77 Cambrian (Upper) U.S.A., RAASCH in RAASCH & LOCHMAN J. Paleont. 19 1 1945.

*Cryphaeus drevermanni* R. Richter referred to *Asteropyge* (*Asteropyge*) p. 175, *C. rotundifrons* (Emmrich) referred to *A. (A.)* p. 176, *C. diadema* R. Richter referred to *A. (Kayerops)* p. 180, R. & E. RICHTER 94.

*Cryphina* ? *gdoumontensis* changed generic reference for *Asteropyge gdoumontensis* Asselberghs 1930 p. 160 text-figs. 1-5, question discussed as to whether the pygidial spines are true or false, i.e. divisions of pleural doublure p. 164, R. & E. RICHTER 93.

Cryptolithidae see *Tretaspis*.

*Cryptolithus discors* (Angelin) p. 154 pl. xii figs. 1-3 first record in Sweden (Jemtland), THORSUND 117.

*Cryptolithus tessellatus* p. 87 LAVERDIÈRE & LAVALLÉE 43.

? *Cryptolithus* [*Trinucleus*] *concentricus* name allocated by Stubblefield to one of figures of *Trinucleum* in letter from Lhwyd to Rivinus (1698) published Lithophylacii Brit. Ichnographia 1790 [sic], facsimile of figure reproduced p. 358, GUNTHER 32.

*Ctenopyge laticornis* sp. n. for *C. directa* Westergård 1922 *partim* (fig. 17) Poulsen 1923 pl. 3 and *C. teretifrons* W. 1922 *partim* (figs. 7, 8) p. 42 pl. iii figs. 1, 2, *C. neglecta postcurrens* var. n. for *C. neglecta* W. 1922 *partim* (fig. 18) p. 42 pl. ii figs. 15-17, *C. neglecta* form approaching var. *postcurrens* p. 42 pl. ii figs. 13, 14 Cambrian (Upper) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1 1944.

*Cummingella* [*Phillipsia*] *derbyensis* auct. p. 217, *C. [P.] derbyensis* cf. *skartymensis* Weber p. 230, STUBBLEFIELD 112.

*Cybele connemara* Reed relegation to *Ectenonotus* by Raymond accepted p. 56, REED 72.

*Cybele dentata* (Esmark) p. 160, fig. 26, GRORUD 31.

*Cybele verrucosa* name allocated [by Stubblefield] to fig. 8 of Lhwyd's letter to Martin Lister published Phil. Trans. xx, no. 243 (1699) facsimile of figure reproduced p. 399, GUNTHER 32.

*Cybele* (*Cybeloides*) sp. p. 414 pl. iv figs. 1, 5 Ordovician (Upper) Norway, STØRMER Norsk geol. Tidsskr. 25 1945.

*Cybelopsis* ? Ordovician (Lower) Eire p. 60, REED 1945; this referred to *Loganopeltis* (with confidence) p. 136, REED 72.

*Cyclopyge prisca* p. 161 pl. ii fig. 2, KINDLE 38.

Cf. *Cyclopyge prisca longicephala* Klouček Maillieux p. 244 in German Ordovician, BEYER 13.

*Cyphaspis* sp. p. 409, STØRMER 111.

*Cyphaspis* ?-sp. Reed 1909 p. 125 reidentified as *Hystericurus* cf. *tuberculatus* (Walcott) p. 63, REED 72.

*Cyrtosymbole sulcata* sp. n. Carboniferous (Lower = Etroeungt Beds) Germany p. 710 pl. xxxix fig. 2, PAUL Jahr. preuss. geol. Landesanst. für 1938 59 1939.

*Dalmanites emarginatus* recorded from Canada p. 80, LEPAGE 45.

? *Dalmanites* cf. *patacamayaensis* Kozłowski Caster 1939 referred to Proetidae and probably to genus *Basidechenella* R. Richter 1912 p. 177, R. & E. RICHTER 93.

*Dalmanites rugosa* Conrad recorded from Devonian of Morocco p. 201 LE MAITRE 49.

*Dalmanites testorei* Meneghini 1888 invalid because inadequately described p. 188, R. RICHTER 82.

Dalmanitidae see *Calliops*, *Calyptaulax*, *Chasmops*, *Achatella*, *Calmoninac*.

*Dawsonia* Hartt MS. 1868 invalid, replaced by *Eodiscus* Matthew 1896 p. 187, R. RICHTER 82.

*Dawsonia* Hartt 1868 considered to be an unpublished name and first validly used in 1873 for a ? Coelenterate by Nicholson, p. 21, R. & E. RICHTER 89.

*Delgadodiscus* Kobayashi 1935 considered to be synonym of *Eodiscus* (*Weymouthia*) Raymond 1913 p. 29 presence of eyes doubted p. 30, R. & E. RICHTER 89.

*Delgadoia* Vogdes 1917 considered synonym of *Eodiscus* (*Weymouthia*) Raymond p. 29, R. & E. RICHTER 89.

*Denckmannites* see *Phacopidella*.

*Dicranopeltis canadensis* revised generic reference for *Brontes* ? *canadensis* Logan p. 530 pl. lxi figs. 6-9, KINDLE 37.

*Dicranopeltoides* Phleger considered to be a synonym of *Dicranopeltis* Hawle & Corda *D.* ? *canadensis* (Logan) and *D.* ? *logani* Northrop referred to *Dicranopeltis* p. 530 pl. lxi figs. 6-9, KINDLE 37.

Dikelocephalidae see *Saukianda* gen. n. *Perrector* gen. n. *Eops* gen. n.

*Dikelocephalus oweni* Ulrich & Resser p. 633 pl. lxxxviii, fig. 3, TWENHOFEL 120.

*Dipleura* (*Homalonotus*) *dekayi* Green recorded from Gold Coast p. 27, A. M. DAVIES in JUNNER 36.

*Dorypyge* genus discussed p. 118; *D. tenella* p. 119 pl. xi figs. 1-5, text-fig. p. 120; *D. corusca* p. 121 text-fig., pl. xi figs. 8-13; *D. decoris* p. 122 text-fig. pl. xi fig. 7 spp. n. *D.* sp. ind. p. 122 pl. xi fig. 6 Cambrian (Middle) Australia, WHITEHOUSE Mem. Queensland Mus. Brisbane 12 3 1945.

*Dorypyge* cf. *lakei* Cobbold p. 361 pl. xxii figs. 11-13; *D.* cf. *richthofeni* Dames p. 362 pl. xxii fig. 15; *D.* sp. indet. p. 363 pl. xxii fig. 14 Cambrian (Middle) Germany (Prussia), W. E. SCHMIDT Jahr. Reichsamts für Bodenforsch. für 1941 62 1944.

*Dorypygidae* p. 118, WHITEHOUSE 127.

*Dorypyginae* Kobayashi 1935 referred to *Corynexochidae* Angelin 1854 p. 35, R. & E. RICHTER 89.

*Drevermannia* (*Palpebralia* ?) *herrmanni* sp. n. Devonian (Middle) Morocco p. 158 pl. iv fig. 11, R. & E. RICHTER *Senckenbergiana* 26 1-3 1943.

*Drevermannia* sp. associated with the goniatite *Prolecanites* (*Merocanites*) *applanatus* (Frech) and *Münsteroceras inconstans* p. 153, R. RICHTER in H. SCHMIDT 95.

*Ectenonotus connemara* (Reed) taken to include *Encrinurus* aff. *multisegmentatus* of Reed 1909 p. 125 and *Phacops* (*Chasmops*) sp. from the Shangort Beds and probably also *Phacops* (*Chasmops*) aff. *odini* 1910 p. 277 from Glensaul p. 56, *E. octocostatus* (Reed) taken to include *Pliomera pseudoarticu-*

*lata* Reed 1910 pl. xxii fig. 5 non Portlock from Glensaul as suggested by Raymond p. 57, REED 72.

*Ehmania* ? *hypsologena* sp. n. p. 211 pl. 1 fig. 4 *E.* ? *lajensis* revised generic designation for *Bathyrurus* l. Kayser 1876 p. 210 Cambrian (Middle) Argentina, HARRINGTON & LEANZA Rev. Mus. La Plata N.S. Paleont 2 1943.

Ellipsocephalidae see *Protolenus*, and *Lusatiops* gen. n.

*Ellipsocephalus annulatus* p. 379 pl. xxiv figs. 22, 23; *E. ansatus* p. 381 pl. xxiv fig. 24; *E. anomocaroides* (referred to as *E.* ? on explanation of plate) p. 382 pl. xxiv figs. 25-27 spp. n. Cambrian (Middle) Germany Prussia, W. E. SCHMIDT Jahr. Reichsamts für Bodenforsch. für 1941 62 1944.

*Ellipsocephalus* near Algeria-Morocco boundary p. 511, MENCHIKOFF 50.

*Encrinurus laurentinus* Twenhofel p. 411 pl. ii fig. 14 in Norway, *E.* ? sp. p. 413 pl. iv fig. 6, STØRMER 111.

*Ellaspis* gen. n. [resembles somewhat *Kingstonia*] for type *E. elliptica* sp. n. Ordovician (Lower) Canada (Quebec) p. 318 pl. ii figs. 5-8, RASSETTI Amer. J. Sci. 243 6 1945.

*Eocyphops* see *Phacops*.

Eodiscidae (Gürich 1907) Raymond 1913 to include *Eodiscus* Matthew 1896, *Pagetia* Walcott 1916, *Hebediscus* Whitehouse 1936 relationship between genera discussed p. 17 relationship of family with Agnostidae discussed p. 19, Microdiscidae Gürich 1907, *Pageti[i]dae* Kobayashi 1935, *Dawsoni[i]dae* Resser 1937 considered to be synonyms p. 21, R. & E. RICHTER 89.

Eodiscidea R. Richter 1932 considered as synonym of Agnostidea (Salter 1862) p. 16, R. & E. RICHTER 89.

Eodiscidea Richter considered as an order, characters summarised, eye bearing forms included p. 309, RASSETTI 69.

*Eodiscus* Matthew 1896 discussed, *E.* (*Eodiscus*) Matthew 1896, *E.* (*Serrodiscus*) subgen. n., *E.* (*Weymouthia*) Raymond 1913 accepted as subgenera p. 22, *Calodiscus* Howell 1935 and *Goniodiscus* Raymond 1913 considered to be synonyms of *E.* (*E.*) p. 22; *E.* (*E.*) *schucherti* (Matthew) as genotype p. 22; *E.* (*E.*) *llarenai* sp. n. Cambrian (Lower) Spain (Andalusia) p. 23 pl. ii



figs. 25, 26, pl. iv fig. 58 : *E. (Serrodiscus)* subgen. n. for type *E. (S.) serratus* sp. n. Spain (Andalusia) p. 23 pl. i figs. 1-10, pl. ii figs. 22-24, pl. iv fig. 59 ; *E. (S.) silesius* sp. n. Germany (Silesia) p. 26 pl. i figs. 11-14, pl. iv fig. 60, *E. (S.) cf. speciosus* (Ford) p. 27, pl. i figs. 17-21, pl. iv fig. 61 Silesia, p. 23 pl. i figs. 15, 16 Spain (Andalusia) Cambrian (Lower); *E. (S.) insulans* (Matthew 1899), *E. (S.) bellimarginatus* (Shaler & Foerste 1888) p. 23, *E. (W.) caudatus* (Delgado 1904) p. 30 pl. ii figs. 27-32, pl. iv fig. 62 Spain (Andalusia) Cambrian (Lower). R. & E. RICHTER Abh. senckenberg. naturf. Ges. 455 1941.

*Eodiscus chintingshanensis* p. 180, pl. i figs. 1a-c, *E. tingi* p. 181 pl. i fig. 2 spp. n. Cambrian (Lower) China (Kweichow), LU Bull. Geol. Soc. China 22 3-4 1942.

*Eodiscus speciosus* (Ford) in Silesia p. 771, pl. li fig. 12, SCHWARZBACH 98.

*Eoharpes percensis* sp. n. Ordovician (Upper) Canada (Quebec) p. 161 pl. ii fig. 3, ? figs. 4, 5, KINDLE Amer. J. Sci. 243 3 1945.

*Eops* gen. n. [Dikelocephalidae] for type *E. eo* sp. n. Cambrian (Upper) Spain (Andalusia) p. 36 pl. ii figs. 45-48, pl. v fig. d, text-fig. 4d, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Eteraspis prosorysa* sp. n. p. 215 pl. i figs. 5-7, text-fig. 3, *E. orbignyana* revised description, refiguring of lectotype and revised generic assignation for *Bathyurus ? orbignyana* Kayser 1876 p. 213 pl. 1 figs. 8-13 text-fig. Cambrian (Middle) Argentina, HARRINGTON & LEANZA Rev. Mus. La Plata N.S. Paleont. 2 1943.

*Eurycare intermedium* sp. n. p. 41 pl. ii figs. 7-10, *E. angustatum crassicorne* var. n. p. 41 pl. ii figs. 2-4, *E. angustatum* Angelin pl. ii figs. 5, 6, *E. latum* (Boeck) p. 41 pl. ii figs. 11, 12 Cambrian (Upper) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Flexicalymene jemtlandica* sp. n. Ordovician Sweden (Jemtland) p. 147 pl. xii figs. 19-22, THORSUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Flexicalymene* sp. p. 182 pl. vii fig. 11 text-fig. 1r ? Silurian (Upper) Australia (Victoria), GILL Proc. R. Soc. Victoria N.S. 56 2 1945.

*Geragnostus* sp. p. 13 text-fig. 6 in Öland Lower Ordovician, REGNELL 76.

*Glyptometopus laflammei* (Clark) p. 467 pl. lxi figs. 1, 2, RASETTI 70.

*Goniodiscus* Raymond 1913 homonym; synonym of *Eodiscus* (*Eodiscus*) p. 22, R. & E. RICHTER 89.

*Goniotelus marionensis* sp. n. p. 83 pl. xxxv figs. 32-37 U.S.A. (Arkansas and Missouri), *G. semicircularis* sp. n. p. 84 pl. xxxv figs. 25, 26 U.S.A. (Arkansas) Ordovician (Lower), CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Grandagnostus* Howell 1935 genotype *G. vermontensis* Howell invalid by "Isotype" since the genotype species is only distinguished from the genotype species of *Phalacroma* by size p. 186, R. RICHTER 81.

*Gravicalymere hetera* p. 179 pl. vii fig. 12 text-fig. 1b Silurian (Upper), *G. kilmorensis* p. 180 pl. vii fig. 9 text-fig. 1e, ? Upper Silurian spp. n. *G. angustior* (Chapman) types redescribed p. 176 pl. vii figs. 5, 10 text-fig. 1c Devonian (Lower), *G. cf. kilmorensis* p. 181 pl. vii fig. 7, *G. spp.* p. 181, GILL Proc. R. soc. Victoria N.S. 56 2 1945.

*Griffithides* cf. *longiceps* Portlock p. 229, STUBBLEFIELD 112.

*Harpes concavus* sp. n. Ordovician Sweden (Jemtland) p. 152 pl. xi figs. 16-18, THORSUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Harpes perradiatus* sp. n. p. 165 pl. iv. figs. 12-13 text-fig. 2a-c, *H. sp. n.* A p. 168 Devonian Morocco, R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Hebediscus* Whitehouse 1936 discussed, accepted as member of *Eodiscidae* p. 17, R. & E. RICHTER 89.

*Hemisphaerocoryphe sulcata* sp. n. Ordovician Sweden (Jemtland) p. 159 pl. x figs. 6, 7, THORSUND Avh. Sver. geol. Undersökn. (C) 346 1940.

*Hesa* gen. n. for type *H. problematica* sp. nov. (= *Paradoxides ?* W. E. Schmidt 1910 *partim*) Cambrian (at boundary between Lower and Middle, probably uppermost Lower) Palestine p. 18 pl. ii figs. 7-11, R. & E. RICHTER Abh. senckenb. naturf. Ges. 460 1941.

*Hicksia elvensis*, *H. sphaerica*, *H. transtaganensis*, *H. walcotti*, *H. castroi*, *H. hughesi*, *H. barroisi*, *H. dewalquei*,



*H. minuta* all species founded by Delgado considered to belong to *H. elvensis* Delgado p. 63 possibly related to *Bonniella* ? *hispanica* p. 38, R. & E. RICHTER 89.

*Holmia kjerulfi* (Linnarsson) anterior and posterior eye-lines, intergenal spine and intergenal rib interpretation discussed pp. 126, 138 text-figs. 14, 17a, b pl. ii figs. 3-5, *H. kjerulfi* ? protaspis (metaprotaspis) originally figured by Kjaer refigured and reinterpreted p. 60, text-figs. 4, 5e, pl. ii figs. 6-7, STØRMER 108.

*Homalonotus machado-costai* sp. n., Silurian (Upper) Portugal p. 40, pl. figs. 1-6, CARRINGTON DA COSTA Bol. Mus. Lab. Min. Geol. Univ. Lisbon 3 7-8 1938-40.

*Homalonotus (Digonus) intermedius* Victor *exigua* var. n. Devonian (Lower) Germany p. 116 text-figs. 2a-e, W. E. SCHMIDT Jahr. Reichsamts für Bodenforsch für 1942 63 1944.

*Homalonotus noticus* Clarke in Uruguay p. 29 pl. v fig. 5, *H. spatulirostris* Méndez-Alzola p. 30, LAMBERT 40.

*Homalonotus (Schizopyge) paraná* Clarke referred to lectotype of *Schizopyge* Clarke 1913 and *Phacopidea* p. 176, R. & E. RICHTER 93.

*Homalonotus* (subgen. ?) sp. p. 156 pl. v fig. 10 Devonian Morocco, R. & E. RICHTER *Senckenbergiana* 26 1-3 1943.

*Hypagnostus* cf. *parvifrons* (Linnarsson) p. 351 pl. xxi fig. 10 ; *H. truncatus* lens p. 352 pl. xxi fig. 11 Germany, W. E. SCHMIDT 96.

*Hystricurus abruptus* sp. n. Ordovician (Lower) U.S.A. (Missouri) p. 80 pl. xxxiv figs. 45-49, *H. cf. conicus* Billings pl. xxxv figs. 11, 12, CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Hystricurus* cf. *tuberculatus* (Walcott) revised identification for *Cyphaspis* ? sp. Reed 1909 p. 125 p. 63 REED 72.

*Iliaenus drummuckensis* sp. n. Ordovician (Upper) Britain (Scotland) p. 260 pl. 1 figs. 3, 4, REED in REED & BEGG Trans. Geol. Soc. Glasgow 20 3 (1943-4) 1945.

*Iliaenus* cf. *consimilis* Billings revised identification for *I. chudleighensis* Reed 1909 p. 144 non Holm p. 63 *I. weaveri* p. 63, REED 72.

*Iliaenus glaber* Kjerulf 1865 original figure published without description, now the original specimen termed lecto-

type is newly figured and described p. 48 text-fig. p. 49, STØRMER Norsk geol. Tidsskr. 22 1-2 (1942) 1943.

*Iliaenus glaber* p. 410 pl. ii figs. 12, 13 ; *I. parvulus* p. 411 pl. iv figs. 7-9, STØRMER 111.

*Iliaenus minor*, p. 140 pl. vi figs. 12, 13, *I. warburgae* p. 142 pl. vii figs. 1-6 spp. n. *I. fallax elongatus* var. n. p. 141 pl. viii figs. 7-10, *I. fallax* Holm p. 140, *I. avus* Holm p. 141 pl. viii figs. 14, 12, *I. oblongus kuckersianus* Holm [*kuckersiana* on explanation of plate] p. 143 pl. viii fig. 13 Ordovician Sweden, THORSLUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Iliaenus* sp. p. 204 Ordovician Germany, BEYER 12.

Iliaenidae, variations of forms of double of pygidium discussed, p. 107, ? *Iliaenus latus* McCoy figured from Girvan, Britain pl. i fig. 8, figures of Baltic specimens given by Holm 1886 reproduced *I. esmarkii* pl. 1 fig. 1, *I. revaliensis* pl. i, fig. 2, *I. maschei* pl. i figs. 3, 4, *I. avus* pl. i figs. 5, 6, *I. jevensis* pl. i fig. 7, BEGG 11.

*Isotelus gigas* p. 87, LAVERDIÈRE & LAVALLÉE 43.

*Isotelus* sp. p. 409 pl. ii fig. 11 text-fig. 5 Ordovician Norway, STØRMER Norsk geol. Tidsskr. 25 1945.

*Jeffersonia* Ulrich referred to Bathyruridae genus discussed and defined p. 70, *J. missouriensis* p. 71 pl. xxxiv figs. 10-16, *J. granosa* p. 72 pl. xxxiv figs. 17-22, *J. producta* p. 73 pl. xxxiv figs. 1-9, *J. mediocrista* p. 74 pl. xxxiv figs. 25-27, *J. delicatula* p. 75 pl. xxxiv figs. 30-32, *J. crassimarginata* p. 75 pl. xxxv figs. 13-16, *J. jennii* p. 76 pl. xxxv figs. 17-22 spp. n. *J.* sp. 1 p. 77 pl. xxxv figs. 9, 10, *J.* sp. 2 p. 77 pl. xxxv figs. 7, 8 Ordovician (Lower) U.S.A. (Missouri), CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Jemtella* gen. n. [cranium similar to *Oedocybele* but lacking prelabellar field] for type *J. clava* sp. n. Ordovician Sweden (Jemtland) p. 160 pl. x figs. 11-13, THORSLUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Kawina divergens* sp. n. for *Pliomera* aff. *fischeri* Reed 1909 p. 144 pl. vi, fig. 4 Ordovician (Lower) Eire p. 59 *K. cf. vulcanus* (Billings) p. 59, REED Geol. Mag. 82 2 1945.

*Kayserops* see *Asteropyge*.

*Keithia connexa* sp. n. Cambrian (Upper) Canada (Quebec) p. 468 pl. lxi figs. 3-5, RASETTI J. Paleont. 19 5 1945.

*Keithiella maior* sp. n. Cambrian (Upper) Canada (Quebec) p. 468 pl. lxi figs. 6, 7, RASETTI J. Paleont. 19 5 1945.

*Kingaspis* Kobayashi 1935 genotype referred to *Palaeolenus* Mansuy 1912 p. 19, R. & E. RICHTER 90.

*Kjerulfia lata* Kiaer posterior eye line appears on internal mould as a faint raised line interpreted not as a facial suture but as division line between distal pleurae of preantennal and antennal segments p. 138; anterior eye line appearing as a faint furrow not considered as representing a trace of facial suture p. 139 pl. ii fig. 1 (see also *Holmia kjerulfi*), STØRMER 108.

*Koptura ? pachecoi* sp. n. Cambrian (Upper) Spain (Andalusia) p. 38 pl. iv fig. 76, R. & E. RICHTER Abh. senckenberg. naturforsch. Gesell. 450 1940.

*Kueichowia* gen. n. [allied to *Redlichia* and *Zacanthoides*] for type *K. liui* sp. n. Cambrian (Lower) China (Kueichow) p. 182 pl. i figs. 5a, b, Lu Bull. Geol. Soc. China 22 3-4 1942.

*Leiocoryphe transversa* sp. n. Cambrian (Upper) Canada (Quebec) p. 469 pl. lxi fig. 9, RASETTI J. Paleont. 19 5 1945.

*Leiocoryphe* sp. n. p. 120 pl. i figs. 5, 6, 8, 9 *L. brevis* (Raymond), fairly complete individual with 8 thoracic segments enables doubt to be removed from tentative generic assignation of 1944 p. 122 pl. i fig. 7 Cambrian (Upper) Canada (Quebec), RASETTI Nat. canad. Québec 72 5-6 1945.

*Leptoplastus abnormis* sp. n. p. 41 pl. i fig. 23, pl. ii fig. 1, *L. paucisegmentatus* p. 40 pl. i figs. 20-22, *L. minor* Westergård considered as synonym of *L. p.* p. 40 Cambrian (Upper) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Leptoplastus paucisegmentatus* Westergård 1922 now stated to have 10 thoracic segments not nine as in original description p. 15, *L. minor* Westergård 1922 probably a synonym of *L. p.* p. 15, WESTERGÅRD 124.

*Leptoplastus ostrogothicus* sp. n. Ordovician [Tremadoc] Sweden (Östergötland) p. 64 text-figs. 8a-c p. 72, WESTERGÅRD Avh. Sver. geol. Undersökn. (C) Årsb. 34 7 1940.

*Levisaspis* an early Ordovician descendant of Upper Cambrian *Norwoodiidae* p. 471, RASETTI 70.

*Levisella oweni* (Billings) p. 469 pl. lxi fig. 11, *L. brevifrons* Rasetti p. 470 pl. lxi fig. 10, RASETTI 70.

*Lichas armatus* (Goldfuss) considered typical for lower part of Middle Devonian p. 266, LORENZ 46.

*Lichas haueri* recorded from Morocco Devonian p. 203, LE MAITRE 49.

*Lichas* (*Euargus*) cf. *parvulus* Novak p. 120 text-figs. 4a-c, W. E. SCHMIDT 97.

*Lichas* s.l. sp. p. 14 text-fig. 7 in Öland Limbata or Planilimbata Limestone, earliest occurrence of a member of this family in Sweden, REGNÉLL Medd. Lunds Geol.-Mineral. Institut. 99 1942.

*Liostracus* genotype, divergent opinions discussed, stated that Linnarsson 1873 designated *L. costatus* Angelin as type p. 62, WESTERGÅRD 122.

*Liostracus* Brögger's figures of developmental series from Middle Cambrian of Øxna (Norway) reproduced text-fig. 1 p. 52, new figure of protaspids of *L. ?* from same locality text-fig. 8 p. 79, pl. ii fig. 2, STØRMER 108.

*Liostracus* see *Andrarina*.

*Loganellus macropleurus* Rasetti p. 470 pl. lxi figs. 12, 13, RASETTI 70.

*Loganopeltoides* gen. n. [similar to *Loganopeltis* but possessing dorsal cephalic sutures] for type *Conocephalites zenkeri* Billings 1860 p. 46 pl. i figs. 2, 3, *L. minutus* new generic reference for *Loganopeltis minuta* Rasetti 1944 p. 47 pl. i fig. 1 Cambrian (Upper) Canada (Quebec), RASETTI Amer. J. Sci. 243 1 1945.

*Loganopeltis* Rasetti, a hypoparian genus considered to have evolved from the genus *Loganopeltoides* which has but pre-ocular branches of a facial suture p. 49, *L. depressa* p. 48 pl. i figs. 4-7; *L. minutus* Rasetti, *L. zenkeri* (Billings) referred to *Loganopeltoides* p. 47, RASETTI 68.

*Loganopeltis* recognised "with confidence" in the Shangort Beds of Tourmakeady Eire p. 136, REED 73.

*Lonchodomas* aff. *rostrata* p. 407 pl. ii fig. 10, STØRMER 111.

*Lotagnostus subtrisectus* sp. n. Cambrian (Upper) Sweden (Scania) p. 39, pl. i fig. 2, WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Lotagnostus* cf. *L. trisectus* (Salter) p. 463 pl. ix, fig. 1, RASETTI 70.

*Lusatiops* gen. n. [Ellipsocephalidae] for type *Protolenus lusaticus* Schwarzbach 1934 p. 43 pl. iii fig. 52, pl. iv fig. 69, *L. sp.* p. 43 pl. iii figs. 54, 55 Cambrian (Lower) Germany (Silesia); *L. bederkei* revised generic reference for *P. b.* Schwarzbach 1939 and *L. coreanicus* revised generic reference for *P. c.* Saito 1939, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 455 1941.

*Lutesvillia* gen. n. [Bathyruridae] for type *L. bispinosa* sp. n. Ordovician (Lower) U.S.A. (Missouri) p. 79 pl. xxxv figs. 1-6, CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Malladaia*? p. 154 pl. v fig. 1 Devonian Morocco, R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Marrolithus* [*Trinucleus*] *favus* name allocated [by C. J. Stubblefield] to fig. 9 of Lhwyd's letter to Martin Lister published Phil. Trans. xx, no. 243 (1699) facsimile of figure reproduced p. 399 GUNTHER 32.

*Menocephalus sedgwicki* Billings 1860 referred to *Onchonotus*? p. 470 pl. lxi figs. 17-19, RASETTI 70.

Mesembria, J. M. Clarke's 1913 group comprising *Metacryphaeus*, *Anchiopella*, *Calmonia*, *Pennaia* considered to show no sign of atavism as claimed by Clarke p. 167, no genus *Mesembria* exists so difficult to make this into a name with a subfamily termination p. 174, group discussed p. 169, R. & E. RICHTER 93.

*Mesospheniscus* Corda 1847 genotype by monotypy *Battus integer* Beyrich 1845 is only invalid by "pseudonyme Tautotypie" as long as Barrande's opinion is upheld that *B. integer*, and *B. cuneifer* Barrande 1846 the genotype species of *Peronopsis* are conspecific p. 187, R. RICHTER 81.

*Metacryphaeus* Reed 1907 lectotype selected *Phacops ocellus* Lake 1904 p. 175 genus overlooked in Delo's 1935 "Revision" p. 175, properly not a subgenus of *Dalmanites* but of *Asteroptyge* p. 175, R. & E. RICHTER 93.

*Micmacca schwarzbachi* sp. n. Cambrian (Lower) Germany (Silesia) p. 44 pl. iii figs. 50, 51 pl. iv fig. 67, R. & E. RICHTER Abh. senckenb. naturf. Ges. 455 1941.

*Microdiscus* Emmons 1855 invalid by "Isotypie" as synonym of *Cryptolithus* Green 1832 p. 188, R. RICHTER 82.

*Microdiscus* Emmons 1855 = *Cryptolithus* Green, *M. schucherti* genotype of *Eodiscus* Matthew 1896 p. 22, *M. speciosus* Ford referred to *E. (Serrordiscus)* p. 27, *M. caudatus* Delgado, *M. subcaudatus* Delgado, *M. wenceslasi* Delgado, *M. woodwardi* Delgado, *M. souzai* Delgado all referred to *E. (Weymouthia) caudatus* (Delgado) p. 30, R. & E. RICHTER 89.

*Nieszkowskia cephaloceros longispina* var. n. [*longispinus* on explanation of plate] p. 157 pl. x fig. 8, N. sp. p. 158 pl. ix figs. 5, 6 Ordovician Sweden, THORSUND Avh. Sver. geol. Undersökn. (C) 346 1940.

*Nileus armadillo* Dalman retained as correct identification for specimens figured in 1910 from Glensaul but *N. armadillo* from Tourmakeady (Reed 1910 p. 273) now referred to *Symphy-surina* cf. *elegans* Poulsen p. 64, REED 72.

*Niobe* cf. *insignis* Linnarsson p. 7 pl. i fig. 4, *N. laeviceps* (Dalman) p. 7 pl. i fig. 5 REGNÉL 75.

*Niobe* sp. Reed 1910 pl. xxii figs. 3a, 3b redescribed as *Bathyrurellus ornatus* sp. n. p. 61, REED Geol. Mag. 82 2 1945.

*Odontochile* sp. A p. 147 pl. ii fig. 7, O. cf. sp. A. p. 148 pl. v figs. 8, 9, O. sp. n. B [group of *O. reussi* (Barrande)] p. 148 pl. ii fig. 6, O. sp. C [group of *O. rugosa* Corda 1847] p. 149 pl. ii fig. 8 Devonian Morocco, R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Ogygia*? *concentrica* Linnarsson referred to *Bronteopsis* p. 139 pl. vi fig. 11, THORSUND 117.

*Ogygiocaris buchi* name allocated [by C. J. Stubblefield] to fig. 15 ("skeleton of some Flat-fish") of Lhwyd's letter to Martin Lister published Phil. Trans. xx, no. 243 (1699) facsimile of figure reproduced p. 398; also to one of figures of *Trinucleum* in letter written to Rivinus (1698) published Lithophylacii Brit. Ichnographia 1790 [sic], GUNTHER 32.

*Olenidea* Swinnerton 1915 nov. emend. as superfamily; Section Conocoryphida-Olenina Swinnerton 1915, superfamily Ellipsocephalidea R. Richter 1932, and Kobayashi 1935 p. 116, suborder Ptychoparida Kobayashi 1935 p. 82, suborder Ellipsocephalida Whitehouse 1939 taken as synonyms p. 40, R. & E. RICHTER 89.

Olenellidae (Walcott 1891) Vogdes 1893 accepted as replacing Mesonacidae Walcott 1891 and Mesonacidae Walcott 1910 p. 33, R. & E. RICHTER 89.

Olenellidea Swinnerton 1915 nov. emend. as superfamily; Suborder Mesonacida Swinnerton 1915 order Mesonacida Poulsen 1927, superfamily Redlichidea R. Richter 1932, suborder Mesonacida Kobayashi 1935 p. 81, superfamily Harpedacea Kobayashi 1935 p. 116 considered as synonyms p. 33, R. & E. RICHTER 89.

*Olenellus zimmermanni* sp. n. Cambrian (Lower) Germany (Silesia) p. 771 pl. 1, figs. 1, 2, SCHWARZBACH Jahr. preuss. geol. Landesanst. für 1938 59 1939.

*Olenopsis thoralis* Cobbold 1931 referred to *Protolenus* p. 47, R. & E. RICHTER 89.

*Olenus gibbosus* (Wahlenberg) Strand's developmental material refigured with additional protaspids p. 81, text-figs. 9, 10 pl. 1 figs. 19-24, STØRMER 108.

*Onchonotus sulcatus* sp. n. Cambrian (Upper) Canada (Quebec) p. 470 pl. lxi figs. 20-22, *O. ? sedgwicki* (Billings) p. 470 pl. lxi figs. 17-19, RASETTI J. Paleont. 19 5 1945.

*Otarion hydrocephala* (A. Roemer) in Morocco Devonian p. 160, R. & E. RICHTER 94.

*Pagetia* described from Lower Cambrian *P. elli* p. 315 pl. ii figs. 13-18, *P. billingsi* p. 316 pl. ii figs. 9-12 spp. n. Cambrian (Lower) Canada (Quebec), RASETTI Amer. J. Sci. 243 6 1945.

*Pagetia annio* (Cobbold) referred to *Strenuaeva* p. 49, R. & E. RICHTER 89.

*Pagetia* ? sp. p. 181 pl. i figs. 3a, 3b Cambrian (Lower) China (Kueichow), LU Bull. Geol. Soc. China 22 3-4 1942.

*Pagetides* gen. n. [Eodiscidea] for type *P. elegans* sp. n. p. 312 pl. i figs. 15-18 Cambrian (Lower) Canada (Quebec), *P. minutus* p. 313 pl. i figs. 11, 12, *P. leiopygus* p. 314 pl. i figs. 7-10, *P.*

*pustulosus* p. 314 pl. i figs. 13, 14, *P. amplifrons* p. 314 pl. i figs. 1-6 spp. n. Cambrian (Lower) Canada (Quebec), RASETTI Amer. J. Sci. 243 6 1945.

*Palaeolenus campbelli* revised generic reference for *Anomocare campbelli* King 1923, genotype of *Kingaspis* Kobayashi 1935, referred to Ellipsocephalidae p. 19 pl. ii figs. 12-16; horizon considered to be near Lower and Middle Cambrian boundary probably uppermost Lower Cambrian, R. & E. RICHTER 90.

*Palaeolenus deprati* Mansuy figured and described with early stages of cranidia from Kueichow Province p. 184 pl. i figs. 6a-d, LU 48.

*Palpebralia* see *Drevermannia*.

*Parabolina* ? *incerta* sp. n. Cambrian (Upper) Canada (Quebec) p. 471 pl. lxi fig. 16, RASETTI J. Paleont. 19 5 1945.

*Parabolina longicornis praecurrens* var. n. p. 39 pl. i figs. 9-11, *P. longicornis* Westergård p. 39 pl. i figs. 4-8, *P. megalops* species revised and restricted as in 1942, lectotype selected p. 39 pl. i figs. 12-17, 18 ?; Cambrian (Upper) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Parabolina megalops* Moberg & Möller 1898 adjudged a composite species, their figures 2, 6, and 8 belong to one species of *Parabolina*, their figures 1, 4 and 7 are referable to *P. longicornis* Westergård and fig. 9 is of a pygidium of a form of *Peltura scarabaeoides*, p. 14 WESTERGÅRD 129.

*Paradoxides*, recalled that Brongniart in 1822 designated *Entomostracites paradoxissimus* Wahlenberg 1821 as type of *Paradoxides* but Brongniart's changing of the specific name to *tessini* is invalid; genotype species therefore *P. paradoxissimus* p. 7 (61 English text), WESTERGÅRD 122.

*Paradoxides bohemicus* (Boeck) was a manuscript name written by Boeck in pencil on a single copy of a plate sent to Sternberg and the species should be referred to as *P. gracilis* (Boeck) 1827, *P. spinosus* (Boeck) similarly was a manuscript name and that species should be referred to as *P. minor* (Boeck) 1827 p. 101, PRANTL 58.

*Paradoxides choffati* Delgado referred to *Callavia* ? p. 62, R. & E. RICHTER 89.



*Paradoxides* cf. *pinus* Westergård p. 356 pl. xxi fig. 20, *P. pusillus* Barrande p. 357 pl. xxiii fig. 13, *P. saturnoides* (Barrande) (uncertain whether young of *P. pinus* or another species) p. 357 pl. xxiii figs. 11, 12; *P. rugulosus* Corda p. 358 pl. xxi figs. 21-26, pl. xxii figs. 1-10 Germany, W. E. SCHMIDT 96.

*Paradoxides*? W. E. Schmidt 1910 *partim* redescribed as *Redlichia* (*Redlichops*) *blanckenhorni* sp. n. p. 15 and *partim* as *Hesa problematica* sp. n. p. 18 [quod vide] R. & E. RICHTER 90.

*Paranorwoodia* gen. n. [related to *Norwoodia*, *Norwoodella* and *Holcocephalus* all proparian] for type *P. venusta* sp. n. Cambrian (Upper) Canada (Quebec) p. 471 pl. lxi figs. 23-25, RASETTI J. Paleont. 19 5 1945.

*Peltura scarabaeoides* (Wahlenberg) pl. iii fig. 3, *P. cornigera* Westergård p. 43 pl. iii fig. 4, *P. paradoxa*? (Moberg & Möller) p. 42 pl. iii fig. 5, WESTERGÅRD 125.

*Periomma punctata* sp. n. Cambrian (Lower) Canada (Quebec) p. 317 pl. i fig. 19, RASETTI Amer. J. Sci. 243 6 1945.

*Peronopsis* cf. *lobatus* Illing p. 354 pl. xxi figs. 13, 14 Germany, W. E. SCHMIDT 96.

*Perrector* gen. n. [Dikelocephalidae] for type *P. perrectus* sp. n. Cambrian (Upper) Spain (Andalusia) p. 30 pl. ii figs. 22-31 pl. v fig. b, text-fig. 4b, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Petigurus*? cf. *crassicornis* Poulsen revised identification for *Bathyurus* cf. *nero* Reed 1910 p. 275 pl. xxi figs. 4a, 4b, REED 72.

Phacopidae, Salter's "Einbettung" of moult-exuvial in this family helpful to stratigraphy and structural geology p. 194 text-fig. p. 404, R. RICHTER 84.

*Phacopidella* (*Denckmannites*) *micromma* (A. Roemer 1852) lectotype here chosen and refigured p. 141 pl. iii figs. 1-5 (Morocco) 6-9 (Germany), *P. (D.)* sp. A p. 146, *P. (D. ?)* sp. indet. p. 146 pl. iii fig. 10 Devonian Morocco, R. & E. RICHTER 94.

*Phacops*, lectotype Barrande 1852, *P. (P.) latifrons* (Bronn 1825) p. 128;

*P. (P.) papulatus* p. 128 pl. i fig. 1, *P. (P.) erfoudensis* p. 131 pl. i fig. 4, *P. (P.) despujolsi* p. 133 pl. i fig. 3 spp. n., *P. (P.) accipitrinus accipitrinus* (Phillips) p. 130 pl. i fig. 2, *P. (P.)* sp. indet. p. 131, *P. (P.)* sp. A p. 135 pl. v fig. 7, *P. (P.)* sp. B p. 135; *P. (Eocrypophops) termieri* sp. n. p. 136 pl. ii figs. 1, 2; *P. (Reedops ?) bronnoides* sp. n. p. 139 pl. i fig. 7, *P. (subg. ?)* sp. indet. p. 140 Devonian Morocco, *P. (E.) kayseri* (Herrmann) p. 169 pl. ii, figs. 3-5 text-figs. 3, *P. (P.) granulatus* (Münster) pl. i fig. 5, *P. (P.) wedekindi*, R. & E. Richter pl. i fig. 6 Germany, R. & E. RICHTER Senckenbergiana 25 1-3 1943.

*Phacops cephalotes*, cf. *P. intermedius* p. 201, *P. secundus major* p. 202, *P. f. degener*, *P. latifrons* p. 203 recorded from Morocco Devonian, LE MAITRE 49.

*Phacops (Phacops)* cf. *major* Barrande described from Middle Devonian of Germany p. 93, R. & E. RICHTER 92. *P. (P.)* cf. *major* p. 92, SOLLE 106.

*Phacops schlotheimi* (Bronn) considered typical for lower part of Middle Devonian p. 265, LORENZ 46.

*Phacops* sp. p. 68 pl. ii fig. 16 Devonian (Upper), France, BÖHM, Études sur les faunes du Dévonien supérieur et du Carbonifère inférieur de la Montagne Noire Montpellier 1935.

*Phacops* sp. p. 158 text-fig. 6 Devonian (Lower) Germany, R. & E. RICHTER Senckenbergiana 25 1-3 1942.

*Phalacroma* see *Platagnostus* and *Grandagnostus*.

*Phalacroma barlowii* (Belt) *inaequalis* var. n. Cambrian (Middle) Germany p. 353 pl. xxi fig. 12, W. E. SCHMIDT Jahr. Reichsamts für Bodensforsch. für 1941 62 1944.

*Pharostoma similis* sp. n. Ordovician Sweden (Södermanland) p. 144 pl. xi figs. 1-14, THORSLUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Phillibole* cf. *megalo[h]thalma* (Weber) and *P. cf. polleni* (H. Woodward) recorded from Derbyshire p. 293, STUBBLEFIELD in HUDSON & COTTON 34.

*Phillipsia* sp. p. 149 pl. viii figs. 9a, b Carboniferous (Lower) France, BÖHM Études sur les faunes du Dévonien supérieur et du Carbonifère inférieur de la Montagne Noire Montpellier 1935.

*Phoretropis* sp. undet. p. 471 pl. lxi fig. 27, *P. ? marginata* sp. n. p. 471 pl. lxi figs. 28, 29 Cambrian (Upper) Canada (Quebec), RASETTI J. Paleont. 19 5 1945.

*Platagnostus* Howell 1935 invalid by "orthonyme Tautotypie" for its holotype *Battus bibullatus* Barrande 1846 had been previously made lectogenotype of *Phalacroma* Corda 1847 by Raymond in 1913 p. 186, R. RICHTER 81.

Plathagnostinae error pro Platagnostidae subfamily name invalid for reasons given under *Platagnostus* [quod vide] p. 187, R. RICHTER 81.

*Platydiamesus depressus* Raymond p. 472 pl. lxi fig. 30, *P. inornatus* (Raymond) p. 472 pl. lxi fig. 14, *P. levisensis* Rasetti p. 472 pl. lxi fig. 15, RASETTI 70.

*Platylichas laxatus* McCoy in Norway pl. 417 pl. iv fig. 15, STØRMER 111.

*Platylichas validus* (Linnarsson) p. 153 pl. ix figs. 1-3, THORSLUND 117.

*Plethometopus obtusus* sp. n. p. 472 pl. lxii figs. 1, 2, *P. laevis* (Raymond) p. 472 pl. lxii fig. 3 Cambrian (Upper) Canada (Quebec), RASETTI J. Paleont. 19 5 1945.

*Pliomera pseudoarticulata* Reed 1910 pl. xxii fig. 5 reidentified as *Ectenonotus octocostatus* (Reed) p. 57, *P. p.* Reed 1910 pl. xxii fig. 6 reidentified as *Pliomerops* (*Protopliomerops*) cf. *insolitus* (Poulsen) p. 58, *Pliomera* aff. *fischeri* Reed 1909 pl. vi fig. 4 renamed *Kawina divergens* sp. n. p. 59, REED 72.

*Pliomerops shangortensis* sp. n. for *Pliomera* aff. *barrandei* Reed 1909 p. 145 pl. vi fig. 5 Ordovician (Lower) Eire p. 57, *P. (Protopliomerops)* cf. *primigenus* Angelin revised identification for *Acidaspis* ? Reed 1909 p. 148, pl. vi fig. 8, *P. (Protopliomerops)* cf. *insolitus* (Poulsen) revised identification for *Pliomerops* [sic] *pseudoarticulata* Reed 1910 pl. xxii, fig. 6 non Portlock p. 58, REED Geol. Mag. 82 2 1945.

*Probolium* Oehlert 1888 genotype is by original definition *Dalmanites nasutus* Conrad not *D. (P.) galloisi* the lectotype chosen by Vogdes 1925 p. 165, R. & E. RICHTER 93.

*Proetides* Walter 1926 discussed and its relationship to *Brachymetopus* p.

109, *P. ? stratton-porteri* revised generic reference for *Phillipsia* s. Rowley 1908 and *Brachymetopus* s. Moore 1928 two of Rowley's types refigured p. 110 pl. ix figs. 65, 66, WILLIAMS 129.

*Proetus scobieii* sp. n. Ordovician (Upper) Britain (Scotland) p. 261 pl. i, figs. 1-2, BEGG in REED & BEGG Trans. Geol. Soc. Glasgow 20 3 (1943-4) 1945.

*Proetus* (*Cornuproetus* ?) sp. indet. p. 157, *P.* (subgen. ?) sp. indet. p. 157, R. & E. RICHTER 94.

*Proetus complanatus* recorded from Devonian Morocco p. 202, LE MAITRE 49.

*Proetus missouriensis* Shumard p. 112 pl. ix figs. 45-50, *P. tenuituberculus* Williams wax-cast of holotype (which shows colour markings) figured p. 113 pl. ix fig. 67, WILLIAMS 129.

*Proetus phocion* Billings p. 23 Devonian (Lower) Canada (Quebec), CLARK 20.

*Proetus* sp. p. 158 text-figs. 7, 8 Devonian (Lower) Germany, R. & E. RICHTER Senckenbergiana 25 1-3 1942.

*Protolenus* referred to Redlichidae p. 773, *P. bederkei* sp. n. p. 774 pl. li figs. 6-9 text-fig. 1 (right-hand figure); *P. lusaticus* Schwarzbach p. 773 pl. li figs. 1-4 text-figs. 1 (left-hand fig.), 3, 4, 6 (text-figs. 3, 4 showing specimens distorted by pressure, text-fig. 6 reconstruction); *P. lusaticus spinosus* p. 774 pl. li fig. 5, *Protolenus* sp. claimed to have 17 thoracic segments p. 775 pl. li, figs. 10, 11 Cambrian (Lower) Germany (Silesia), SCHWARZBACH Jahr. preuss. Geol. Landesanst. für 1938 59 1939.

*Protolenus* Matthew 1892 discussed, *P. paradoxoides* Matthew considered to be the valid lectogenotype selected by Matthew 1895 p. 41, *P. schneideri* sp. n. p. 45, pl. iii fig. 46, pl. iv fig. 68; *P. spp.* p. 48 pl. iii figs. 47-49 Spain (Andalusia); "*P.*" sp. p. 42 pl. iii fig. 53 Germany (Silesia); *P. pustulatus* (Cobbold) referred to *Streniella* p. 41; *P. lusaticus* Schwarzbach 1934 made genotype of *Lusatiops* gen. n. p. 43, *P. bederkei* Schwarzbach 1939 and *P. coreanicus* Saito 1939 both referred to *Lusatiops* p. 43; *P. thoralis* revised generic reference for *Olenopsis thoralis* Cobbold 1931 p. 47, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 455 1941.

*Pseudagnostus leptoplastorum* sp. n. Cambrian (Upper) Sweden (Scania) p. 39 pl. i fig. 1, WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Pseudasaphus* cf. *tecticaudatus laursoni* Öpik p. 137 pl. ix figs. 7-8 in Sweden, THORSLUND 117.

*Pseudosphaerochus elongatus* p. 155 pl. x figs. 1-2, *P. tvaerensis* p. 156 pl. x figs. 3-5 spp. n. Ordovician Sweden, THORSLUND Avh. Sver. geol. Undersökn. (C) 346 1940.

*Ptychoparia sternbergiana* Boeck (= *striata* Emmrich) genotype of *P.*, has 14 thoracic segments as in genotype of *Conocoryphe*, *C. sulzeri* (Schlotheim) p. 53, *P. ? annio* Cobbold 1910 referred to *Strenuaeva* p. 49, R. & E. RICHTER 89.

Pterygometopinae see *Calliops*, *Calyptaulax*, *Chasmops*, *Achatella*.

*Punctularia brevifrons* sp. n. Cambrian (Upper) Canada (Quebec) p. 472 pl. lxi, fig. 26, RASSETTI J. Paleont. 19 5 1945.

*Rananasus* gen. n. for type *R. conicus* sp. n. p. 81 pl. xxxiv figs. 36-40, *R. brevicephalus* sp. n. p. 82 pl. xxxiv figs. 41-44 Ordovician (Lower) U.S.A. (Missouri), CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Reacalymene ? hottedahli* sp. n. p. 415 pl. ii figs. 6-8 Ordovician (Upper) Norway (Hadeland), STØRMER Norsk geol. Tidsskr. 25 1945.

*Redlichia intermedia* sp. n. p. 334 pl. i figs. 9-10 Cambrian (Lower) China (Yunnan), developmental history described and illustrated pl. i figs. 1-10, Lu Bull. Geol. Soc. China 20 3-4, 1940.

*Redlichia chinensis* Walcott figured from Kueichow Province p. 182 pl. i fig. 4, Lu 48.

*Redlichia* (*Redlichops*) subgen. n. for type *R. (Redlichops) blanckenhorni* sp. n. (= *Ptychoparia* W. E. Schmidt 1910 and *Paradoxides ? partim* W. E. Schmidt 1910) Cambrian (at boundary between Lower and Middle, probably uppermost Lower Cambrian) Palestine p. 13 pl. ii figs. 1-6, 10, 11, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 460 1941.

*Redlichia* see *Kueichowia*.

Redlichiiidae considered as derived from "Primitive Opisthoparia" not from Mesonacidae p. 340, Lu 47.

*Reedops* see *Phacops*.

*Remopleurides latus* Olin *granensis* var. n. p. 408 pl. iv fig. 4 Ordovician (Upper) Norway (Hadeland), STØRMER Norsk geol. Tidss. 25 1945.

*Remopleurides validus* p. 132 pl. vii figs. 1-9, *R. wimani* p. 135 pl. vii figs. 10-13 spp. n., *R. cf. latus* Olin p. 136 pl. vii figs. 14-16, *R. nanus elongatus* F. Schmidt [*elongata* on explanation of plate] p. 131 pl. vii figs. 17-20 Ordovician Sweden, THORSLUND Avh. Sver. geol. Undersökn. (C) 436 1940.

*Resseraspis* gen. n. [like *Lecanopyge*] for type *R. carinata* sp. n. Cambrian (Upper) Canada (Quebec) p. 473 pl. lxii figs. 4, 5, RASSETTI J. Paleont. 19 5 1945.

*Resserops* gen. n. [Dikelocephalidae] for type *R. resserianus* sp. n. Cambrian (Upper) Spain (Andalusia) p. 33 pl. ii figs. 32-44 pl. v fig. c, text-fig. 4c, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Rhenops* subgen. n. [published without diagnosis in 1938] see *Asteropyge*.

*Rollia* gen. n. [Solenopleuridae] for type *R. goodwini* sp. n. Ordovician (Lower) U.S.A. (Missouri) p. 80 pl. xxxiv figs. 33-35, CULLISON Bull. Univ. Missouri School of Mines & Metallurgy 15 2 1944.

*Sao* Barrande 1846 genotype *S. hirsuta* Barrande, is strictly speaking an invalid homonym of *Sao* Billberg 1820, application to be made to International Commission for suspension of rules for this well-known genus, R. RICHTER 83.

*Saukianda* gen. n. [Dikelocephalidae (Saukiinae)] for type *S. andalusiae* sp. n. Cambrian (Upper) Spain (Andalusia) p. 23 pl. i figs. 1-18, pl. ii figs. 20-21, pl. v fig. a, text-fig. 4a, *S. andalusiae* ? p. 28 pl. i fig. 19, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Schizopyge* Clarke 1913 lectotype R. & E. Richter 1939, *Homalonotus* (*Schizopyge*) *pananá* Clarke 1913 referred to Phacopidea nearly related to *Asteropyge* p. 176, R. & E. RICHTER 93.

*Schmalenseeia acutangula* nom. nud. p. 35 Cambrian (Middle) Sweden (Scania), WESTERGÅRD Avh. Sver. geol. Undersökn. (C) 459 1944.

*Scutellum* attention drawn to R. & E. Richter's 1925 publication when *Scutellum* Pusch 1833 was shown to be the valid name of the genus called *Goldius* de Koninck 1841, MILLER & UNKLESBAY 51.

*Scutellum alutaceum* (Goldfuss) considered typical for lower part of Middle Devonian p. 265, LORENZ 46.

*Scutellum maurum* sp. n. p. 160 pl. iv figs. 1-3, *S. formosum* (Barrande) lectotype chosen p. 161 pl. iv figs. 5-7, *S. sp. aff. angusticeps* (Barrande) p. 162 pl. iv fig. 4, *S. cf. costatum* Pusch p. 163 pl. iv fig. 8, *S. sp.* p. 164 pl. iv fig. 9 Devonian Morocco, R. & E. RICHTER Senckenbergiana 26 1-3 1943.

*Scutellum pompilius* (Billings) p. 529 pl. lxix figs. 1-3, KINDLE 37.

*Serrodiscus* subgen. n. of *Eodiscus* [quod vide].

*Shumardia pusilla* (Sars) pp. 10, 21, *S. curta*? Stubblefield p. 21 in Sweden (Öland), WESTERGÅRD 126.

*Solenopleura picardi* sp. n. p. 376 pl. xxiii figs. 14, 17, 18, *S. cf. vermontensis* Howell p. 374 pl. xxiii fig. 16 Cambrian (Middle) Germany (Prussia), W. E. SCHMIDT Jahr. Reichsamts für Bodenforsch. für 1941 62 1944.

*Sphaerexochus* cf. *hisingeri* Warburg p. 158 pl. x figs. 9, 10, THORSLUND 117.

*Stenopilus dubius* Rasetti p. 477 pl. lxii figs. 26, 27, RASETTI 70.

*Stenopilus elongatus* Rasetti 1944 complete specimen described and figured; no individual forms longer than 8 mm.; thorax of ten segments p. 122, pl. i figs. 10-16, RASETTI 67.

*Strenuaeva* subgen. n. of *Strenuella* [quod vide]. *Strenuaeva* raised to generic status p. 48, *S. cf. vigilans* (Matthew 1899) p. 48 pl. ii figs. 34, 35 pl. iv fig. 71; *S. cf. annio* (Cobbold 1910) p. 49 pl. ii fig. 33, pl. iv fig. 70 Cambrian (Lower) Spain (Andalusia), *S. vigilans* holotype refigured pl. iv figs. 72a, b, R. & E. RICHTER 89.

*Strenuella strenua* (Billings 1874) lectotype selected p. 40, *S. (Strenuaeva)* subgen. n. for type *Arionellus primaeva* Brögger 1879 Cambrian (Lower) Norway p. 40 pl. iii fig. 54, 55; *S. (Strenuaeva) sampelayoi* p. 41 pl. iii figs. 51-53, pl. v fig. e, text-fig. 4e; *S. (Strenuaeva) insecta* p. 42 pl. iii figs. 56-63 pl. v fig. f, text-fig. 4f spp. n. Cambrian (Upper

Spain (Andalusia), R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Strenuella frankenwaldensis* revised generic reference for *Agraulos f. Wurm* 1925, p. 384 pl. xxiv figs. 14-20, W. E. SCHMIDT 96.

*Strenuella strenua* (Billings) p. 48 lectotype refigured pl. iv fig. 73, also another specimen pl. iv fig. 74, R. & E. RICHTER 89.

*Strettonia comleyensis* Cobbold p. 39, pl. iv fig. 65 compared with *Bonniella*, Pygidium referred by Cobbold 1931 pl. xl figs. 17a-c to *Protolenus* here referred to *S. comleyensis* p. 39, R. & E. RICHTER 89.

*Stygina latifrons* Portlock p. 410 pl. iv figs. 11, 12 in Norway, STØRMER 111.

*Stygina*? *nitens* (Wiman) p. 137 pl. vi figs. 1-10 in Sweden, THORSLUND 117.

*Symphysurina* cf. *elegans* Poulsen revised identification of *Symphysurus*? sp. Reed 1909 p. 150 pl. vi fig. 12 later referred to *Nileus armadillo* Reed 1910 p. 273 from Shangort Beds Tourmakeady, REED 72.

*Synphoria* Clarke 1897 was a concept introduced as intermediate between the genus *Dalmanites* and the "subgeneric names" *Odontocephalus*, *Corycephalus* and *Coronurus*, Vogdes 1925 considered it to represent a genus and chose as lectotype *Dalmanites stemmatum* Clarke 1900, this species here considered to be close to *Anchiopella anchiops* and the name *Synphoria* is considered to lapse p. 175, R. & E. RICHTER 93.

*Synphorinae* Delo 1935 considered invalid see *Synphoria* p. 176, R. & E. RICHTER 93.

*Taenicephalus* sp. recorded from a boulder of Upper Cambrian (Franconian) age in Quebec p. 56, RASETTI 66.

*Taenicephalina* gen. n. [like *Talbotina* and *Taenicephalus* but close relationship doubtful] for type *T. lechevalieri* sp. n. p. 473 pl. lxii figs. 6-8, *Talbotina*? *levisensis* Rasetti doubtfully referred to this genus p. 473 Cambrian (Upper) Canada (Quebec), RASETTI J. Paleont. 19 5 1945.

*Tatonaspis levisensis* Rasetti p. 474 pl. lxii figs. 11-14, RASETTI 70.



*Telephus hibernicus* p. 65, REED 72.

*Tellerina* ? *genata* sp. n. p. 29 pl. iii figs. 49–50, *T.* ? sp. A p. 30 pl. iv figs. 74, 75 Cambrian (Upper) Spain (Andalusia), *T. crassimarginata* (Whitfield) text-fig. 11 p. 24, R. & E. RICHTER Abh. senckenberg. naturf. Ges. 450 1940.

*Tellerina crassimarginata* (Whitfield) nearly entire specimen p. 634 pl. lxxxviii fig. 2, TWENHOFEL 120.

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# 12. ARACHNIDA

to which are added

MEROSTOMATA, PANTOPODA, TARDIGRADA, PENTASTOMIDA, MYRIOPODA, and ONYCHOPHORA

arranged by  
E. BROWNING

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*Carvalhodesmus* gen. nov. [Strongylosomidae] defined p. 28; genotype *C. costalimai* sp. nov. ♂. ♀ Maciço da Tijuca, Jacarepacua, D.F., Brazil p. 25 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Catamicrophyllum caifanum* redescr. p. 314 figs.; *C. hamuligerum* redescr. p. 315 figs., ATTEMS 47.

*Catharosoma bromelicola* sp. nov. ♂. ♀ Fazenda de Rubião, Mun. Mangaratiba, Rio de Janeiro p. 37; *C. carioca* sp. nov. ♂. ♀ Maciço da Tijuca, Grajaú, D.F., Brazil p. 35 figs.; *C. glabratum* sp. nov. ♂. ♀ Maciço da Pedra-Branca, D.F., Brazil p. 31 figs., SCHUBART Arq. Mus. nat. Rio de J. 38; *C. ibitiense* sp. nov. ♂. ♀ Monte Alegre, São Paulo, Brazil p. 303 figs., SCHUBART Pap. Avulsos Dept. Zool. S. Paulo 6; *C. apex galeae* notes p. 438 fig., ATTEMS 50.

*Cearodesmus* gen. nov. [Leptodesmidae] defined p. 275; genotype *C. gomesi* sp. nov. ♂. ♀ Fortaleza, Ceará, Brazil p. 276 figs., SCHUBART Rev. Brasil. Biol. Rio 5.

*Cearostreptus* gen. nov. [Spirostreptidae] defined p. 279; genotype *C. triangulatus* sp. nov. ♂ Fortaleza, Ceará, Brazil p. 280 figs., SCHUBART Rev. Brasil. Biol. Rio 5.

*Ceratozoma* (*Illyriosoma* subgen. nov.) *manfredii* sp. nov. Italy, STRASSER Zool. Anz. Leipzig 138; *C. (Triakontazona) attemsi*, *C. (T.) pusillum carniolense* notes, STRASSER 792.

*Cercostreptus* subgen. nov. see *Anurostreptus*.

*Cheiropus* gen. nov. [Xystodesmidae] defined p. 170; genotype *C. planicus* sp. nov. ♂ Thomasville, Georgia p. 171 fig., LOOMIS Psyche, Cambridge, Mass. 51.

*Chonaphe armata* gonopod fig. p. 414, VERHOEFF 879.

*Chromatoiulus* discussed p. 303; key to subgenera p. 305; *C. (Pharloiulus* subgen. nov.) subgenotype *C. lictor* Attems p. 306; *C. (P.) seditiosus* sp. nov. ♂ Berrut, p. 308 figs.; *C. (Diazylus* subgen. nov.) subgenotype *C. anatolicus* Attems p. 307; *C. (D.) nigrivallis* sp. nov. ♂ Karadere, Bulgaria p. 309 figs.; *C. (Dittozus* subgen. nov.) subgenotype *C. anulatus* Attems p. 307; *C. (P.) crassus* notes p. 312 fig.; *C. (S.) imbecillus* notes p. 312 fig.; *C. (D.) taygetanus* notes p. 312 fig., ATTEMS Ann. naturh. Mus. Wien 50.

*Cleptoria shelfordi* sp. nov. ♂ De La Howe Forest, Georgia p. 172 fig., LOOMIS Psyche, Cambridge, Mass. 51.

*Conchostreptus* gen. nov. [Spirostreptidae] defined p. 75; genotype *C. bahianus* sp. nov. ♂ Bananal, Bahia, Brazil p. 76 fig.; *C. pictus* sp. nov. ♂. ♀ Barra de Tapirapé, Matto Grosso p. 78 figs., SCHUBART Ann. Acad. Bras. Cienc. Rio 17.

*Cornalatus terrigena* sp. nov. ♂ Barreira, Brazil p. 444 figs., ATTEMS Senckenbergiana Frankfurt 26.

*Cryptocorypha leia* sp. nov. ♂ Goenong, Malabar, Java p. 5 figs.; *C. tobana* sp. nov. ♂ Lake Toba (Tobameer), Sumatra p. 5 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Cryptodesmus sulphuricollis* sp. nov. ♂. ♀ Maciço da Pedra-Branca, D.F., Brazil p. 113 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Crypturodesmus robustior* sp. nov. Theresopolis, Brazil p. 458 figs., ATTEMS Senckenbergiana Frankfurt 26.

*Cryptyma javana* sp. nov. ♂. ♀ Pangrango, Java p. 6 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Cylindrodesmus laniger* sp. nov. ♂. ♀ Tijuca, Rio de Janeiro p. 130 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Cylindroiulus (Anculoboiulus) costatus* sp. nov. ♂ Belgrader Walde, European side of Bosphorus p. 6 figs., VERHOEFF Rev. Fac. Sci. Univ. Istanbul 53; *C. (Apenninicylindrus subgen. nov.) sorrentinus aenariensis subsp. nov.* ♂ Isle of Ischia, Italy p. 164 figs.; *C. sorrentinus* notes p. 164 fig., VERHOEFF Z. Morph. Ökol. Tiere Berlin 38; *C. (Appenninicylindrus) solarius* sp. nov. Id. of Capri, Italy, VERHOEFF Zool. Anz. Leipzig 139; *C. molisius umbrae subsp. nov.* ♂ Umbra, Italy p. 182 figs., MANFREDI Atti. Soc. Ital. Milano 82; *C. frisius oceanicus* new record from California p. 67, VERHOEFF 881.

*Dactylophorosoma (E.) albocarinarum* sp. nov. ♂. ♀ Buco near Boscon, Venezia propria, Italy p. 234 fig., MANFREDI Atti. Soc. Ital. Milano 79.

*Dametis* gen. nov. [Harpagophoridae] defined p. 100; genotype *Stenurostreptus crenulatus* Attems (1936) p. 100; also added to gen. *Stenurostreptus falcatus* Attems (1936) p. 101, ATTEMS Ann. naturh. Mus. Wien 52.

*Dendrobrachypus* gen. nov. [Trichopolydesmidae] defined p. 89; genotype *D. pusillus* sp. nov. ♂. ♀ Santa Isabel, Fernando Po p. 91 figs., VERHOEFF Zool. Anz. Leipzig 136.

*Diaxylus* subgen. nov. see *Chromatoulus*.

*Dinematocricus acompus* sp. nov. ♂ Pionierbivak, New Guinea, p. 22 figs.; *D. eupistus* sp. nov. ♂ Doormanpad, New Guinea p. 22 figs.; *D. gonethus* sp. nov. ♂. ♀ Pionierbivak, New Guinea, p. 22 figs.; *D. hadleyi* sp. nov. ♂. ♀ New Guinea p. 23 figs.; *D. kangeanus* sp. nov. ♂ Tambajangau, Kangean Island, Java p. 23 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Districodesmus* gen. nov. [Vanhoeffeniidae] defined p. 140; genotype *D. lobulatus* sp. nov. ♂. ♀ Pico da Tijuca,

Maciço da Tijuca, D.F., Brazil p. 138 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Dittozus* subgen. nov. see *Chromatoulus*.

*Dolichoglyphius asper* ♂ describ. from Riu-Kiu, Japan p. 20 figs., VERHOEFF 882.

*Dysthymus uganonus* sp. nov. ♂. ♀ Ugano, Tanganyika Territory p. 246 fig., ATTEMS Zool. Anz. Leipzig 144.

*Elatosus* gen. nov. [Cryptodesmidae] defined p. 5; genotype *E. pygmaeus* sp. nov. ♂. ♀ Tjibodas, Java p. 6 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Epanerchodus (Krenoerchodus subgen. nov.) fontium* sp. nov. ♂ near hot spring, Siobara, Japan p. 41 figs.; *E. (K.) inferus* sp. nov. ♂ Kurasawa-Höhle, Tokyo, Japan p. 42, VERHOEFF Mitt. Höhlen-u. Karstf. Berlin 1941; *E. (Antrochodus subgen. nov.) isikawai* sp. nov. ♂ Ryugada lime cave, Koti, Japan p. 114 figs., *E. (Huzichodus subgen. nov.) lobatus* sp. nov. ♂ near river, Huzi Mts., Japan p. 116 figs., VERHOEFF Z. Karst Höhlenk. Berlin 1941.

*Eroonsoma* gen. nov. [Eroonsomidae] defined p. 179; genotype *E. pomini* sp. nov. ♂. ♀ Bosco Ginestra, Gargano, Italy p. 180 figs., MANFREDI Atti. Soc. Ital. Milano 82.

*Eurydesmus agrestis* sp. nov. ♂ Estado do Rio, Rio de Janeiro p. 68 figs.; *E. alipioi* sp. nov. ♂. ♀ Jacarepagua, Maciço da Tijuca, D.F., Brazil p. 65 figs.; *E. angustus* sp. nov. ♀ Maciço da Tijuca, D.F., Brazil p. 76; *E. armatus* sp. nov. ♂. ♀ Maciço da Tijuca, D.F., Brazil p. 72 figs.; *E. assimilis* sp. nov. ♂ Maciço da Tijuca, Rio de Janeiro p. 71 figs.; *E. ruidus* sp. nov. VERHOEFF & SCHUBART ♂. ♀ Maciço da Tijuca, D.F., Brazil p. 74 figs.; *E. angulatus* notes p. 76 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Eviulisoma graueri* sp. nov. ♂ Randbergen, Northwest coast of Tanganyika p. 247 figs., ATTEMS Zool. Anz. Leipzig 144.

*Exospermittus* gen. nov. [Spirostreptidae] defined p. 94; genotype *E. claviger* sp. nov. ♂ Moka, Fernando Po p. 94 figs., VERHOEFF Z. Morph. Ökol. Tiere Berlin 39.

*Gervaisia asiaeminoris* sp. nov. ♂. ♀ Brussa near Jnkayakay, Turkey p. 44 figs., VERHOEFF Rev. Fac. Sci. Univ. Istanbul 5B.

*Glenniea* gen. nov. [Vanhoeffeniidae] defined p. 39; genotype *G. indica* sp. nov. ♂. ♀ ? in cave, Moila Swallet, Bundelkhand, India p. 39 figs., TURK Ann. Mag. nat. Hist. (11) 12.

*Gnomeskelus bacillifer* sp. nov. ♂ East Distr., New England, Cape Colony p. 231 figs.; *G. mixtus* sp. nov. previously wrongly describ. as *G. repandus* p. 233; *G. repandus* notes p. 232 fig., ATTEMS Zool. Anz. Leipzig 144.

*Gnomognathus* gen. nov. [Harpagophoridae] defined p. 93; genotype *Theropygus minusculus* Attems (1936) redescrib. p. 93 figs., ATTEMS Ann. naturh. Mus. Wien 52.

*Gonodrepanoides* gen. nov. [Strongylosomidae] defined p. 31; genotype *G. travassosi* sp. nov. ♂. ♀ Maciço da Pedra-Branca, D.F., Brazil p. 28 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Gonodrepanum falciferum* sp. nov. ♂. ♀ Fazenda de Rubião, Mun. de Mangaratiba, Rio de Janeiro p. 15 figs.; *G. flavolineatum* sp. nov. ♀ Fazenda de Rubião, Rio de Janeiro p. 15; *G. furcatum* sp. nov. ♂. ♀ Maciço da Pedra-Branca, D.F., Brazil p. 18 figs.; *G. grajahuense* sp. nov. ♂. ♀ Maciço da Tijuca, D.F., Brazil p. 20 figs.; *G. torresae* sp. nov. ♂. ♀ Maciço da Tijuca, D.F., Brazil p. 12 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Gonographis* gen. nov. [Stylodesmidae] defined p. 86; genotype *G. hastata* sp. nov. ♂. ♀ Maciço da Tijuca, D.F., Brazil p. 84 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Gottscheosoma* Verhoeff congeneric with *Acrochordum*, STRASSER 792.

*Gymnostreptus* (*Trinidadius* subgen. nov.) *klagesi* sp. nov. ♂ Ceparo, Trinidad p. 297 figs., VERHOEFF Arch. Naturgesch. Leipzig 40.

*Habrodesmoides* gen. nov. [Strongylosomidae] defined p. 439; genotype *H. perturbans* sp. nov. ♂ Theresopolis, Brazil p. 439 figs., ATTEMS Senckenbergiana Frankfurt 26.

*Habrodesmus alacer* sp. nov. ♂ Tigre, Columbia p. 243; *H. inexpectatus* sp. nov. ♂ Takao, Japan p. 242 figs.; *H. niger semiflavus* subsp. nov. ♂ Kaoko Otavi, Cape Colony p. 243, ATTEMS Zool. Anz. Leipzig 144.

*Haplochiropus* subgen. nov. see *Antichiropus*.

*Hemicryptodesmus* gen. nov. [Cryptodesmidae] defined p. 102; genotype *H. alticola* sp. nov. ♀ Maciço da Tijuca, D.F., Brazil p. 101 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Hoplitesmus* gen. nov. [Oniscodesmidae] defined p. 8; genotype *H. enoplus* sp. nov. ♂ Poentjak p. 8 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Huzichodus* subgen. nov. see *Epanerchodus*.

*Illyriosoma* subgen. nov. see *Cera-tozoma*.

*Ilyma cajuni* sp. nov. ♂ Venice, Louisiana, U.S.A. p. 175 fig., LOOMIS Psyche, Cambridge, Mass. 51.

*Javichus* gen. nov. [Cambalidae] defined p. 27; genotype *J. monilus* sp. nov. ♂ Tjibodas, Java p. 27 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Javolus* gen. nov. [Spirobolidae] defined p. 20; genotype *J. purmerendus* sp. nov. ♂. ♀ Purmerend, Batavia Bay, Java p. 20 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Katantodesmus obscurus* sp. nov. ♂. ♀ Représa dos Ciganos, Maciço da Tijuca, D.F., Brazil p. 152 figs.; *K. occultus* sp. nov. ♂. ♀ Fazenda de Rubião, Rio de Janeiro p. 153 figs., SCHUBART Arq. Mus. nat. Rio de J. 38; *K. opacus* sp. nov. ♂. ♀ Monte Alegre, São Paulo, Brazil p. 310 figs., SCHUBART Pap. Avulsos Dept. Zool. S. Paulo 6.

*Kiusiunum* gen. nov. [Kiusiunidae] defined p. 433; genotype *K. nodulosum* sp. nov. ♂. ♀ Beppu, Kiusiu, Japan p. 442 figs., VERHOEFF Arch. Naturgesch. Leipzig (N.F.) 10.

*Kophosphaera* key to spp. p. 67; *K. pellita* sp. nov. Sumatra p. 66 figs., ATTEMS Ann. naturh. Mus. Wien 53.

*Krenoerchodus* subgen. nov. see *Epanerchodus*.

*Lavabates* gen. nov. [Blaniulidae] defined p. 38; genotype *L. takakuwai* sp. nov. ♂ in lava tunnel, Mt. Fuzi, Japan p. 39 figs., VERHOEFF Mitt. Höhlen-u. Karstf. Berlin 1941.

*Leptodesmus* (*L.*) *azevedoi* sp. nov. ♂ Monte Alegre, São Paulo, Brazil p. 306 figs., SCHUBART Pap. Avulsos Dept. Zool. S. Paulo 6; *L. badius* sp. nov. ♂ ♀ St. Luis, Argentina p. 224 fig.; *L. unciger* sp. nov. ♂ Joazeiro, Brazil p. 223 figs.; *L. (Pseudoleptodesmus) badioniger* sp. nov. ♂ ♀ Camacha, Brazil p. 226 figs.; *L. (P.) serranus* sp. nov. ♂ Serra, Brazil p. 227 fig., ATTEMS Zool. Anz. Leipzig 144; *L. jacarepaguensis* sp. nov. ♂ ♀ Maciço da Tijuca, Jacarepagua, D.F., Brazil p. 57 figs.; *L. jawlowskii* sp. nov. ♀ Maciço da Tijuca, Excelsior, D.F., Brazil p. 59 figs.; *L. marginatus* sp. nov. ♂ Fazenda de Rubião, Mun. Mangaratiba, Rio de Janeiro p. 61 fig.; *L. (L.) biconicus* ♂ redescrib. p. 53 figs.; *L. (L.) carneus* ♂ notes p. 56 figs., SCHUBART Arq. Mus. nat. Rio de J. 38; *L. (Leptodesmus) lissonotus* sp. nov. ♂ Gorduras, Brazil p. 441 figs., ATTEMS Senckenbergiana Frankfurt 26.

*Lissosphaera* gen. nov. [Sphaerotheriidae] defined p. 63; genotype *L. speciosa* sp. nov. Sumatra p. 63 figs., ATTEMS Ann. naturh. Mus. Wien 53.

*Lysiopetalum* (*Osmanopetalum* subgen. nov.) *kosswigi* sp. nov. ♂ European side of Bosphorus p. 16 figs., VERHOEFF Rev. Fac. Sci. Univ. Istanbul 5B; *L. (Atticopetalum* subgen. nov.) *pallidum* sp. nov. ♂ in cave, Athens, Greece p. 46 figs.; *L. key* to subgenera p. 48, VERHOEFF Mitt. Höhlen-u. Karstf. Berlin 1941.

*Macrochaetosoma* considered to belong to Antroremyidae, VERHOEFF 897.

*Manfredia* gen. nov. genotype *Atractosoma aemelianum* Manfredi (1932) p. 76 figs., VERHOEFF Mitt. Höhlen-u. Karstf. Berlin 1940.

*Melaphe corrupta* sp. nov. ♂ Harrar, Ig-Iga, Abyssinia p. 229 fig., ATTEMS Zool. Anz. Leipzig 144; *M. (Melaphe) wohlberedti* sp. nov. ♂ Rhodes p. 42 fig., VERHOEFF Rev. Fac. Sci. Univ. Istanbul 5B.

*Mesocryptodesmus* gen. nov. [Cryptodesmidae] defined p. 101; genotype

*M. filicis* sp. nov. ♀ Maciço da Tijuca, D.F., Brazil p. 99 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Mesoiulus franzi* sp. nov. ♂ Lower Danube, Balkans p. 162 figs., ATTEMS Zool. Anz. Leipzig 144.

*Metagonocoeilius* gen. nov. [Spirostreptidae] p. 292; genotype *M. ornatus* sp. nov. ♂ Venezuela p. 292 figs., VERHOEFF Arch. Naturgesch. Leipzig N.F. 10.

*Metapidothrix javana* sp. nov. ♂ ♀ Tjibodas, Java p. 20 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Microbrachyiulus gilvicollis* sp. nov. ♂ Isle of Ischia, Italy p. 161 figs., VERHOEFF Z. Morph. Ökol. Tiere Berlin 38; *M. olearum degenerans* subsp. nov. Id. of Capri, Italy, VERHOEFF Zool. Anz. Leipzig 139; *M. olearum ischianus* subsp. nov. ♂ ♀ Ischia, Italy p. 96 fig., VERHOEFF Z. Morph. Ökol. Tiere Berlin 37.

*Microdesmus capreae* sp. nov. Id. of Capri, Italy, VERHOEFF Zool. Anz. Leipzig 139.

*Microtrullius biramus* sp. nov. ♂ Theresopolis, Brazil p. 445 figs., ATTEMS Senckenbergiana Frankfurt 26.

*Minasgonus ligulifer* notes p. 93 fig., VERHOEFF 894.

*Monoxenus* preocc. see *Unixenus*.

*Moojenodesmus* gen. nov. [Vanhoefeniidae] defined p. 137; genotype *M. pygmaeus* sp. nov. ♂ ♀ Furnas, Maciço da Tijuca, D.F., Brazil p. 135 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

*Neoleptodesmus josefinus* sp. nov. ♂ La Caja near San José, Argentina p. 238 figs., ATTEMS Zool. Anz. Leipzig 144.

*Niponiosoma* gen. nov. [Niponiosomidae] defined p. 36; genotype *N. troglodytes* sp. nov. ♂ in cave, Kurasawa-Höhle, Tokyo, Japan p. 36 figs., VERHOEFF Mitt. Höhlen-u. Karstf. Berlin 1941.

*Nopoiulus (Choneiulus) minimus* sp. nov. ♂ Isle of Ischia, Italy p. 165 figs., VERHOEFF Z. Morph. Ökol. Tiere Berlin 38.

*Odontosternum* gen. nov. [Sphaerotheriidae] defined p. 64; genotype *O. fuscum* sp. nov. ♂ ♀ Ahmednagar, South India p. 65 figs., ATTEMS Ann. naturh. Mus. Wien 53.



*Ophiulus* key to spp.; *O. cerii* sp. nov. Id. of Capri, Italy; *O. napolitanus affinis* subsp. nov. Id. of Capri, Italy; *O. napolitanus capreae* subsp. nov. Id. of Capri, Italy; *O. targionii aenariensis* subsp. nov. Id. of Capri, Italy; *O. targionii buchneri* subsp. nov. Id. of Capri, Italy; *O. targionii macchiophilus* subsp. nov. Id. of Capri, Italy; *O. targionii varians* subsp. nov. Id. of Capri, Italy, VERHOEFF Zool. Anz. Leipzig 139; *O. targionii aenariensis* subsp. nov. Isle of Ischia, Italy p. 164 figs.; *O. targionii ischianus* notes p. 165 fig., VERHOEFF Z. Morph. Ökol. Tiere Berlin 38; *O. targionii ischianus* subsp. nov. ♂ Ischia, Italy p. 95 figs., VERHOEFF Z. Morph. Ökol. Tiere Berlin 37.

*Opisotretus euthus* sp. nov. ♂. ♀ Tjibodas, Java p. 4 figs.; *O. mimus* sp. nov. ♀ Tjibodas, Java p. 4 fig.; CHAMBERLIN Amer. Mus. Nov. 1282.

*Opisthoporodesmus anandrus* sp. nov. ♀ Doormanpad, New Guinea p. 3; *O. conservandus* sp. nov. ♂ Prauwembivak, North New Guinea p. 3 figs.; *O. silvestri* sp. nov. ♀ Pionierbivak, New Guinea p. 2 figs.; *O. simplex* sp. nov. ♀ Tjibodas, Java p. 4, CHAMBERLIN Amer. Mus. Nov. 1282.

*Oromannia* subgen. nov. see Bröle-mannia.

*Orthomorpha consocius* sp. nov. ♂ Tjibodas, Java p. 11 fig.; *O. eupistum* sp. nov. ♂ Doormanpad, New Guinea p. 11 figs., CHAMBERLIN Amer. Mus. Nov. 1282; *O. (Kalorthomorpha) fimbriata* sp. nov. ♂ Yamanaka, Suruga, Japan p. 241 figs., ATTEMS Zool. Anz. Leipzig 144; *O. (O.) coarctata* notes p. 41 figs.; *O. (K.) gracilis* notes p. 38 fig., SCHUBART 713.

*Orthoporus bidens* sp. nov. ♂ Mun. Carmo, Ilha dos Pombos, Rio de Janeiro p. 84 figs., SCHUBART Ann. Acad. Bras. Cienc. Rio 17.

*Osmanopetalum* subgen. nov. see *Lysiopetalum*.

*Oxidus annex* sp. nov. ♂. ♀ Tjibodas, Java p. 10 figs.; *O. lamellifer* sp. nov. ♂. ♀ Tjibodas, Java p. 9 fig.; *O. malabaricus* sp. nov. ♂. ♀ Goenæng Malabar, Java p. 10 fig.; *O. pangrango* sp. nov. ♂. ♀ Pangrango, Java p. 10 fig.; *O. sequens* sp. nov. ♂ Pangrango, Java p. 9 figs.; *O. filarius* localities

p. 9 fig.; *O. pygmaeus* notes p. 10 fig., CHAMBERLIN Amer. Mus. Nov. 1282.

*Pachydesmus* key for separation from other genera p. 65; *P. cummingsiensis* sp. nov. ♂. ♀ Cummings, California p. 66 fig., VERHOEFF Bull. S. Calif. Acad. Sci. 43.

*Pachyriulus* discussed p. 317; key to spp. p. 320; *P. (Kaloiliulus) lobifer* sp. nov. ♂. ♀ Bagdje, Southeastern Europe p. 326 figs.; *P. oenologus prominens* subsp. nov. Messina, Italy p. 324 figs.; *P. apfelbecki* redescrib. p. 325 figs.; *P. asiae minoris* ♂ redescrib. p. 325 figs.; *P. cattarensis* redescrib. p. 324 figs.; *P. flavipes* redescrib. p. 322 figs.; *P. aenologus aenologus* redescrib. p. 324 figs.; *P. aenologus pluto* redescrib. p. 324 figs.; *P. varius* redescrib. p. 323 figs., ATTEMS Ann. naturh. Mus. Wien 50; *P. cassinensis garganensis* subsp. nov. ♂. ♀ Gargano, Italy p. 184 figs., MANFREDI Atti. Soc. Ital. Milano 82; *P. (Megailulus) flavipes insularum* subsp. nov. Büyük Ada, Princes I., Sea of Marmora p. 8; *P. (M.) unicolor milesius* notes p. 9 fig., VERHOEFF Rev. Fac. Sci. Univ. Istanbul 5B; *P. varius pallipes* var. nov. ♂. ♀ Lusmia & Karbunara, Albania p. 27 fig., MANFREDI Atti. Soc. Ital. Milano 84; *P. flavipes* notes on abnormal ♂ ♂ p. 168 figs., VERHOEFF 893.

*Pagioprium millequingentesimum* sp. nov. ♂ Kaokoveld, Ontjo, South Africa p. 239 figs., ATTEMS Zool. Anz. Leipzig 144.

*Papuosoma* gen. nov. [Strongylosomidae] defined p. 11; key to spp. p. 12; genotype *P. cladis* sp. nov. ♂ Doormanpad, New Guinea p. 12 fig.; *P. obesum* sp. nov. ♀ Doormanpad, New Guinea p. 14; *P. prodelum* sp. nov. ♂. ♀ Doormanpad, New Guinea p. 13 figs.; *P. typonotum* sp. nov. ♂ Doormanpad, New Guinea p. 13 fig.; *P. zygethus* sp. nov. ♀ Doormanpad, New Guinea p. 13, CHAMBERLIN Amer. Mus. Nov. 1282.

†*Parajulus lasti* sp. nov. at depth of 900 ft. in well, in basaltic lava with crystalline calcite and quartz, Oxnard, California p. 1, PIERCE Bull. S. Calif. Acad. Sci. 44.

*Paroconus* gen. nov. [Polyzonidae] defined p. 27; genotype *P. paurodesmus* sp. nov. ♂. ♀ Krakatau, Java p. 28 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Paulistostreptus* **gen. nov.** [Spirostreptidae] defined p. 80; genotype *P. digitalis* **sp. nov.** ♂. ♀ Mun. Andradina, Ilha Sêca, São Paulo p. 80 figs., SCHUBART An. Acad. Bras. Cienc. Rio 17.

*Pauroplus* **gen. nov.** [Oniscodesmidae] defined p. 8; genotype *P. analdes* **sp. nov.** ♂. ♀ Pedada Bay, Lampongs, Sumatra p. 8 figs., CHAMBERLIN Amer. Mus. Nov. 1282.

*Penteporella* **gen. nov.** [Stylodesmidae] defined p. 88; genotype *P. simplicilobata* **sp. nov.** ♀ Maciço da Pedra-Branca, D.F., Brazil p. 87 figs., SCHUBART Arq. Mus. nat. Rio de J. 38.

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*Perizonopus* **gen. nov.** [Spirostreptidae] defined p. 290; genotype *P. montanus* **sp. nov.** ♂. ♀ Sierra Chica, Cordoba, Argentina p. 291 figs., VERHOEFF Arch. Naturgesch. Leipzig N.F. 10.

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# 13. INSECTA

BY

THE IMPERIAL INSTITUTE OF ENTOMOLOGY

## FOREWORD

THE attention of readers is directed to the fact that, beginning with Vol. 74 (1937), the systematic part of the Record is reserved only for information of purely taxonomic value. References to data on morphology, physiology, bionomics, ecology, distribution and other general problems must be looked for in the Subject Index, where they are arranged by orders under each heading. The classification of headings in the Subject Index has been revised in order to make the information more complete and readily available. It is hoped that this change will render the Record of more value for entomologists working on general problems, without affecting its importance for taxonomists.

Entomological papers written entirely from an economic point of view are omitted, but abstracts of these will be found in the *Review of Applied Entomology*.

Very brief papers, usually those dealing with a single species, are noticed either in the Subject Index or in the systematic part, but do not appear in the list of titles.

The writers of systematic papers are requested to mark new synonyms with the words (*n. syn.*), as otherwise it is impossible to ensure that they will be correctly recorded.

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## I.—TITLES.

1.—Opinions and Declarations rendered by the International Commission on Zoological Nomenclature. London, 41, Queen's Gate, S.W.7. Vols. 1, 2, and 3, 1945. Re-issue of Opinions 7–11.

2.—Opinion 157. Three names in the Order Hymenoptera (Class Insecta) added to the Official List of Generic Names in Zoology.

Opinion 158.—On the status of the name *Locusta* Linnaeus, 1758 (Class Insecta, Order Orthoptera).

Opinion 159.—On the status of the names *Ephialtes* Schrank, 1802, *Ichneumon* Linnaeus, 1758, *Pimpla* Fabricius, [1804–1805], and *Ephialtes* Gravenhorst, 1829 (Class Insecta, Order Hymenoptera).

Opinion 161.—Suspension of the rules for *Argynnis* Fabricius, 1807 (Class Insecta, Order Lepidoptera).

Opinion 162.—Suspension of the rules for *Bracon* Fabricius, [1804–1805] (Class Insecta, Order Hymenoptera).

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Opinion 164.—On the principles to be observed in interpreting Article 30 of the International Code in relation to the types of genera when two or more genera are united on taxonomic grounds.

Opinion 165.—Need for the suspension of the rules for *Strymon* Hübner, 1818 (Class Insecta, Order Lepidoptera) not established.

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Opinion 167.—Suspension of the rules for *Euthalia* Hübner, [1819] (Class Insecta, Order Lepidoptera).

Opinion 168.—On the principles to be observed in interpreting Article 30 of the International Code in relation to the names of genera based upon erroneously determined species (Opinion supplementary to Opinion 65).

Opinion 169.—On the type of the genus *Lycaeides* Hübner, [1819] (Class Insecta, Order Lepidoptera), a genus based upon an erroneously determined species.

Opinion 170.—Need for the suspension of the rules for *Prosopis* Jurine, 1807 (Class Insecta, Order Hymenoptera) not at present established.

Opinion 187.—On the type of the genus *Hypselopus* Burmeister, 1835 (Class Insecta, Order Hemiptera).

Opinion 191.—On the question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to students or colleagues constitutes "publication" within the meaning of proviso (a) to Article 25 of the International Code.

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**Lepidoptera.**—ANDER, Sweden, 200 years, 60; BENANDER, *Xystophora lamprotes*, *Monochroa* (Tin.), Sweden, 157; Lithocolletidae (Tin.), Sweden, 158; DOETS, Netherlands, 1935-38, 625; ELIASSON, Älvkarleby, Sweden, Macrolepidoptera, 672; FRENDIN, Tunabygden, Sweden, 796; HELLMAN, Stromma Canal neighbourhood, Finland, 1014; KAISILA, Karhumäki region, E. Karelia, 1195, 1196; KANERVA, Coleophoridae (Tin.), Finland, 1199; KARVONEN, Vaaseni, Finland, 1214; KIVIRIKKO, Macrolepidoptera, Saäksmäki, Finland, 1233; KNABEN, Norway, new to fauna, 1248; LEMPKE, *Solenobia* (Psych.), Netherlands, 1350; Macrolepidoptera, Netherlands, catalogue, V-VII, 1352; NORDSTRÖM, *Phytometra confusa* (Agrot.), Fennoscandia, distribution, Ent. Tidskr. 66 pp. 170-174 1 map; OPHEIM, Macrolepidoptera, S. Norway Mts., I, II, 1630; some new Macrolepidoptera for Norway, Norsk ent. Tidsskr. 6 1943 p. 231; SYLVÉN, Åsele, Sweden, 2186; VARI, Netherlands, pt. 4, 2293.

**Trichoptera.**—BREKKE, new to Norway, Norsk ent. Tidsskr. 6 1943 pp. 232-233; FISCHER, *Limnophilus*, Netherlands, 735; JENSEN, Rogaland, Norway, 1165.

**Neuroptera.**—TJEDER, Norway, Schøyen collection, revision, 2222; Norway, catalogue, 2223.

**Mecoptera.**—TJEDER, Norway, Schøyen collection, revision, 2222; Norway, catalogue, 2223.

**Diptera.**—AGRELL, Limnobiidae (Tipul.), new to Sweden, 18; DOROGOSTAJSKIJ, RUBTZOV & VLASENKO, Simuliids, E. Siberia, 630; NATVIG, some Culicids, Fennoscandia, 1536; VAN OOSTSTROOM, Syrphidae, S. Limburg, Netherlands, 1629; RINGDAHL, *Tabanus* subgen. *Tylostypia*, Sweden,

revision, 1882; new to Sweden, 1883; Coenosiinae (Musc.), Sweden, 1884; Muscids, Sweden, little known, 1885; Tachinidae, Sweden, keys and catalogue, 1886; Zetterstedt's Lapland Tachinids, 1887; RUBTZOV, *Simulium*, Transbaikalia, 1930; Simuliidae, U.S.S.R., revision, 1932; SHTAKEL'BERG, origin of Siberian Diptera, 2355; SOOT-RYEN, Lycoridae, Norway, list, 2096; Chironomids, Spitsbergen, 2097.

**Hemiptera.**—HEIKINHEIMO, Aphids, new to Finland, 1004; HOLGERSEN, Cicadina, Siberia, Mongolia, 1072; *Thamnotettix* (Jass.), Norway, 1074; Cicadina, Norway, 1076; LETH, Danish water bugs, 1378; OSSIANILSSON, new to Sweden, 1665; RECLAIRE, Heteroptera, Netherlands, 4th suppl., 1841; *Notonecta*, Netherlands, 1842; Cicadina, Netherlands, check list, 1843; Heteroptera, Netherlands, third list, 1844.

**Thysanoptera.**—HUKKINEN, Finland, 1093, 1094.

**Mallophaga.**—MERISUO, Finland, 1524.

**Psocoptera.**—KRUSEMAN, Netherlands, 1284.

**Plecoptera.**—BREKKE, Norway, 281; GELJSKES, Netherlands, 824; JENSEN, Denmark, 1163.

**Ephemeroptera.**—BREKKE, new to Norway, Norsk ent. Tidsskr. 6 1943 p. 233; ULMER, Abisko, Lapland, 2264.

**Odonata.**—ANDER, Sweden, 61; KVIFFTE, *Leucorrhinia*, Norway, 1292; VALLE, Finland, keys to larvae, 2278; Vaitasaari, Finland, 2279.

**Orthoptera.**—KVIFFTE, S. Norway, 1290; WILLFMSE, Holland, keys, 2394.

**Collembola.**—AGRELL, Collembola, Swedish Lapland, 17.

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**Insecta.**—KLOET & HINCKS, check list 1247.

**Coleoptera.**—BAILEY & BRITTEN, Isle of Man (contd.), 97; BAYFORD, Carabidae, generic names, reply to criticism, 133; BLAIR, Carabidae, generic names, reply to criticism, 227; VAN EMDEN, Elateridae, larvae, 676; HINTON, *Anthrenus* (Dermest.), 1053; KEVAN, Silphids, some genn., key to ♂♂, 1225, 1226.

**Hymenoptera.**—FLETCHER, Aculeata, Gloucestershire, list, 745.



**Lepidoptera.**—BEIRNE, Shetland Is., 152; CORBET, St. Kilda, 506; FLETCHER & CLUTTERBUCK, Microlep., Gloucestershire, list (contd.), 743; FORD, butterflies, origin, races, 766; FOSTER, Hertfordshire, additions to list, 771; HESLOP, check list, 1045; JACOBS, *Lithocolletis* (Tin.), 1120; RILEY, moths, 1880; TURNER, Noctuids (Agrot.), and varr., suppl., 2258; WAKELY, *Mompha* (Tin.), 2349.

**Diptera.**—COLLIN, Opomyzidae, 476; Micropezidae, 477; FORDHAM, Northumberland and Durham, preliminary list (excluding Cecidomyiidae), 770; SMART, Simuliidae, 2083; WRIGHT, N. Lancashire and S. Westmorland, 2419.

**Hemiptera.**—BEDWELL, Heteroptera, county distribution, 150; BROWN, Corixidae, Faroe Is., 300; GRAY & ROGERSON, Aphidae, Northumberland, list, 897; JACOB, the "black Aphids," 1116.

**Plecoptera.**—SYMS, list, 2187.

**Odonata.**—DANNREUTHER, West Sussex, list, 552; LE QUESNE, Jersey, 1372; LLOYD, Shropshire, 1404.

**Orthoptera.**—SIMS, changes in Orth. of E. Anglian fenland, 2078.

## FRANCE.

**Insecta.**—COLAS, 462.

**Coleoptera.**—D'AGUILAR, Phalacridae, larvae, key, 20; AUBER, Carabids, Staphylinids, Dytiscids, Scarabaeids, 81; AUZAT, Histerids, Franco-rhénane, keys, 84; BARTHE, Throscidae, Franco-rhénane, keys, 125; Adephaga (concl.), Polyphaga, Franco-rhénane, keys, 126; HOFFMANN, Bruchids, Anthribids, Brentids, Nemomychids (Curc.), 1033; JARRIGE, *Paederus* (Staph.), revision, 1140; JOLIVET, *Timarcha* (Chrysom.), spp. and varr., key, 1173; LE MOULT, *Chrysocarabus* (Carab.), criticism of Jeannel's Faune de France (Col. carabique), 1348; MÉQUIGNON, *Epuraea* (Nitidul.), revision, 1517; geographical bibliography, 1518; *Cryptophagus*, 1521; PATER, rare spp., Côte d'Or, 1710; PUEL, Carabidae, Franco-rhénane, keys, 1806; VILLIERS, Haute Vallée du Giffre, Savoie, 2311.

**Hymenoptera.**—STÄRCKE, Formicids of Port-Croz I. (Hyères), Ent. Ber. Amsterdam 11 1942 p. 23; TIMON-DAVID, Fos, Camargue, 2219.

**Lepidoptera.**—BERNARDI, Paris region, 193; BLANCHARD, Auvergne, 235, 236; LE CERF, Rhopalocera, atlas, 1334; OLIVIER, Normandy (contd.), 1628; RIEL, *Erebia* spp. (Satyr.), 1878.

**Trichoptera.**—LACROIX, Phryganeidae, Limnophilidae, keys, 1300.

**Diptera.**—D'AGUILAR, pt. 2, 22.

**Siphonaptera.**—SÉGUY, monograph, 2044.

**Hemiptera.**—POISSON, Gerridae, revision, 1778; VILLIERS, *Rhinocoris* (Reduv.), 2312; Heteroptera Gymnocerata, 2322.

**Anoplura.**—SÉGUY, monograph, 2044.

**Mallophaga.**—SÉGUY, monograph, 2044.

**Psocoptera.**—BADONNEL, 91; DELAMARE-DEBOUTTEVILLE, Finistère, list, 571.

**Orthoptera.**—GRASSÉ & HOLLANDE, *Calliptamus* (Acrid.), revision, 893.

**Protura.**—CONDÉ, 497, 493.

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**Insecta.**—BODENHEIMER, illustrated keys to fam.n., Turkey, 243; ZHADIN, freshwater insects, U.S.S.R., 2447A.

**Coleoptera.**—BÄNNINGER, *Nebria brevii*, *angustata* (Carab.), distribution, 116; BARTHE, Carabids, Val-Montjoie, French Alps, 127; COLLART, *Tetropium* (Cerambyc.), Belgium, 487; Cerambycidae, Hautes-Fagnes, Belgium, 470; DEBATISSE, Scolytids, Belgium, 534; DELAHON, Schilsky's list, Germany, 570; DERENNE, Belgium, 594; FAGEL, *Gabrius* (Staph.), group *nigritulus*, Belgium, revision, 700; FAGEL & GUILLEAUME, Belgium, additions to catalogue, 701; FRENNET, Belgium, 793; HORION, Tachyporinae (Staph.), Germany, revision, 1031; JANSSENS, Aphodidae, Belgium, 1133; JEANNEL, *Peryphus* (subgen. *Testediolum*) (Carab.), revision, 1149; NERESHEIMER & WAGNER, Mark Brandenburg, XIX, 1598; PITTIONI, Lower Danube, 1771; POLENTZ, Silesia (contd.), 1785; STILLER, Szeged, Hungary, 2143.

**Hymenoptera.**—AERTS, Gerolstein, Rhineland, 15; BEAUMONT, Sphegidae, Switzerland, 140; BLÜTHGEN, Apidae, Germany, 245; Pompilidae, Centr. Europe, 247; DEBAUCHE, Trichogram-



matidae, Belgium, 566; DE RUETTE, Belgium, additions to catalogue, 595; HAUPT, Dryinidae, Germany, keys, 982; HEDICKE, Apidae, Bulgaria, 994; HEDWIG, Ichneumonidae, Silesia (contd.), 996; HEINRICH, Ichneumoninae, Lower Danube, 1005; LECLERCQ, Lège district, 1335; MARKOWSKY, rare bees, Berlin, 1468; MÜLLER, Apidae, Saxony, list, 1571; NOWOTNY, Formicidae, Upper Silesia, 1616; RAPP, bees, Thuringia, 1819; STÖCKHERT, *Nomada furra* (Apid.), group, revision, 2144; STRITT, *Hartigia* spp. (Tenth.), Germany, 2173.

**Lepidoptera.**—BERGER, Rhopalocera, Belgium, list, 183; Aegeriidae, Belgium, 186; Zygaenidae, Belgium, key, 187; CHAPPUIS, Macrolep., Brandenburg, 411; DUFRANE, Microlepidoptera, Belgium, 646; WEBER, Microlepidoptera, Switzerland, 2365.

**Neuroptera.**—PRINCIPI, Italy, 1804.

**Diptera.**—BOUVIER, Tabanidae, Switzerland, revision, 276; COLLART, Conopidae, Hautes-Fagnes, Belgium, 468; Heteroneuridae, Geomyzidae, Hautes-Fagnes, 470; EYMELT, Frankfurt a.M. district, additions, 697; GASCHEN, *Phlebotomus* (Psychod.), Switzerland, 818; GOETCHEBUER, Chironomidae, Ceratopogonidae, Hautes-Fagnes, Belgium, 853; Ceratopogonids, Chironomids, Belgium, additions to catalogue, 856; RUBTZOVA, Simuliidae, U.S.S.R., revision, 1932; VANSCHUYT-BROECK, Borboridae, Belgium, 2283, 2284.

**Hemiptera.**—KUPKA, Cicadina, 1285; Heteroptera, Altmark, Saxony, 1286; LANG, Homoptera, Moravia, list, 1320; MÜLLER, Heteroptera, Thuringia (contd.), 1570.

**Thysanoptera.**—BODER, Switzerland, especially Basle district, 249.

**Odonata.**—VALLE, Taganrog, S. Russia, 2277.

**Orthoptera.**—CARPENTIER, *Acrydium* spp. (Tetrig.), Belgium, revision, 379; MATTHEY, *Saga pedo* (Tettig.), Valais, distribution, 1494; MERKEL, Acridids, Tettigoniids, Siberia, 1525; WEIDNER, Central Germany, additions, 2367.

**Collembola.**—MARLIER, Belgium, 1470.

**Protura.**—GISIN, Switzerland, revision, 847.

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**Insecta.**—ZARCO, Pyrenees, 2443.

**Coleoptera.**—ESPAÑOL COLL, Iberian Peninsula, 693; JEANNEL, *Speonesiotes* (Silph.), Balkans, revision, 1152; MAGISTRETTI, *Mylabris* (Meloid.), Italy, revision, 1446; MAÑAN, *Zabrus aetolus* (Carab.), Greece, Yugoslavia, distribution, 1463; D'ORCHYMONT, *Hydraena grandis* group (Hydroph.), 1655; DE PEYERIMHOFF, in Winkler's Catalogue and Junk's Col. Cat., incorrectly stated to belong to euro-mediterranean fauna, 1754; genera imported or acclimatised in euro-mediterranean fauna, 1755; SILVESTRI, *Mengenilla* (Stylop.), Italy, 2074.

**Hymenoptera.**—CEBALLOS, *Exetastes*, *Banchus* (Ichneum.), Spain, keys, 399; GINER MARÍ, Sphecoidea, Vespoidea, Spain, revision, 839, 842; GIORDANI SOIKA, Ichneumonidae, Venezia Tridentina, list, 846.

**Lepidoptera.**—ROCCI, *Zygaena*, Piedmont, 1903; DA SILVA CRUZ & GONÇALVES, Portugal, 2065, 2066.

**Diptera.**—CAMBOURNAC, Culicids, Aguas de Moura, Portugal, 359; DE MEIRA & TIAGO GONÇALO FERREIRA, *Phlebotomus* (Psychod.), Lisbon and neighbourhood, 1509; MARCUZZI, Venezia Tridentina, Tabanidae, Stratiomyidae, Syrphidae, Conopidae, 1465; TORRES (AÑAMARES, Culicids, Spain, 2231, 2232.

**Hemiptera.**—GÓMEZ-MENOR, Aleurodids, Spain, 869, 870; LUPO, *Leucaspis* (Coccid.), Italy, revision, 1418; ROBERTI, Aphids, Sardinia, 1899; Fordini (Aphid.), Italy, 1901.

**Mallophaga.**—CONCI, Italy, 486, 492.

**Odonata.**—CAPRA, Liguria, 368; GRAVES, Constantinople, 895.

**Orthoptera.**—MORALES AGACINO, Tettigoniids, Spain, 1554.

**Thysanura.**—WYGODZINSKY, Portugal, nos. II–III, 2428.

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**Coleoptera.**—MENOZZI, myrmecophiles, Rhodes and Scarpanto Is., 1515; D'ORCHYMONT, Hydrophilidae, 1638, 1645, 1655, 1656; Palpicornia, Cyprus, 1658; SCHATZMAYR, Aegean and Dodecanese, 1975.

**Hymenoptera.**—ALFKEN, Apids, 46, 47; GINER MARÍ, *Cerceris* spp. (Spheg.) Cyprus, Rhodes, 840; GUIGLIA, Scolids, Vespids, Sphegids, Pompilids, Apids, 922, 924; INVREA, Myrmosids, Mutillids, Chrysidids, Aegean Is., catalogue, 1113.

**Lepidoptera.**—HARTIG, Rhodes, 974.

**Hemiptera.**—FILIPPI, Cydnids, Pentatomids, Coreids, Corixids, 732.

**Psocoptera.**—BALL, *Liposcelis* sp. n., Cyprus, 108.

**Orthoptera.**—JANNONE, Rhodes, Stampalia, 1127.

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**Coleoptera.**—ANTOINE, *Crypticus* (Tenebr.), Morocco, 64; KOCH, Tenebrionidae, Moroccan Atlas Mts., 1262; DE PEYERIMHOFF, Rio de Oro, 1753; *Erodinus* group *costatus* (Tenebr.), Barbary, 1756; RUTER, Curculionids, Moroccan Atlas, 1939; STRALLA, *Prodoretus* sp. n. (Rutel.), Sahara, 2150.

**Hymenoptera.**—GINER MARÍ, Sphegidae, Mutillidae, Spanish Sahara and E. Morocco, list, 841.

**Lepidoptera.**—RUNGS, Moroccan Sahara, 1936.

**Diptera.**—PARROT & BOUQUET DE JOLINÈRE, *Phlebotomus* (Psychod.), Hoggar, 1700; RISTORCELLI, *Phlebotomus* (Psychod.), Morocco, 1891; SÉGUY, of Moroccan Atlas Mts., 2041.

**Hemiptera.**—VILLIERS, *Adeniana* (Cicad.), key, 2308; WAGNER, Capsidae, list, 2337.

**Psocoptera.**—BADONNEL, Morocco, 93.

**Orthoptera.**—CHOPARD, distribution, 437; MORALES AGACINO, W. Sahara, 1555.

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**Coleoptera.**—BALFOUR-BROWNE, Curculionidae, Ukerewe I., Victoria Nyanza, 107; BERNHAUER & PAULIAN, Staphylinids, Cameroons, 207; BORCHMANN, *Allecula* (Cistel.), W. Africa, key, 258; BURGEON, Buprestidae, Belg. Congo, catalogue, 318; *Tmesorrhina* (Ceton.), key, 320; Chrysomelinae, Belg. Congo, 328; Carabidae, Cameroons, 329; Eumolpidae, 321,

327; Melolonthidae, Belg. Congo, 334, 335, 337, 338, 339, 340; DELKESKAMP, Erotylidae, 580; FLEUTIAUX, Eucnemidae, revision, 747; GUIGNOT, Dytiscidae, Gyrinidae, Ivory Coast, Fr. Sudan, 926; JANSSENS, *Gyronotus*, key, *Onitis* (Coprid.), revision, 1133; LEPESME & VILLIERS, Longicorns, coffee, Tropical Africa, 1370; MARCUZZI, *Sphaeridium* (Hydrophil.), E. Africa, 1464; MARSHALL, *Polyclaeis* (Curc.), E. Africa, 1475; MÜLLER, Benadir, Somaliland, 1569; D'ORCHY-MONT, Hydrophilidae, 1637, 1650; PAULIAN, *Bolbo-ceras* (Geotrup.), revision, 1732; PAULIAN & LEGROS, *Georyssus*, 1736A; VILLIERS, Cladoxenitae (Erotyl.), 2314.

**Hymenoptera.**—BERLAND, *Tachytes* (Spheg.), 196; DE SAEGER, Braconidae, 598, 600, 601; EVANIIDAE, Pompilidae, Belg. Congo, 606; GIORDANI SOIKA, Eumenidae, 843, 844; *Odynerus* (Vesp.) revision, 845; GUIGLIA, Aculeata, 920, 923; MASI, Chalcidoids, keys, 1484; WEBER, Formicids, Imatong Mts., Sudan, list, 2363.

**Lepidoptera.**—BERIO, Eucromiidae, Arctiidae, Agaristidae, Lymantriidae, Lasiocampidae, Agrotidae, Eritrea, 189; DEBAUCHE, Hemitehinae (Geom.), Tropical Africa, 568; DUFRANE, Kivu, pts. 2, 3, 645; GHESQUIÈRE, Microlep., Belg. Congo, catalogue, 828; JANSE, Adelidae (Tin.), S. Africa, 1130; STEMPFFER, *Lycaenesthes* group (Lycaen.), revision, 2134; TALBOT, *Mylothris* (Pier.), revision, 2190.

**Trichoptera.**—MARLIER, Belg. Congo, 1473.

**Diptera.**—BEQUAERT, Mydidae, distribution, map, 178A; VAN EMDEN Phasiinae (Tach.), keys, 677; GASCHEN, *Glossina*, French W. Africa, 817; LEWIS, Culicidae, Sudan, 1382; PARROT & MALBRANT, *Phlebotomus* (Psychod.), Middle Congo, 1701; PARROT & MARTIN, *Phlebotomus*, Fr. Equatorial Africa, 1702; PARROT, MORNET & CADENAT, *Phlebotomus*, Fr. W. Africa, 1703, 1704; RAPP & COOPER, Pipunculidae, catalogue, 1824; Psychodidae, check list, 1827; SCHWETZ, *Phlebotomus* (Psychod.), Belg. Congo, 2027.

**Hemiptera.**—LALLEMAND, Cercopids, Cameroons, 1314; POISSON, aquatic Hem., 1780, 1781; SCHOUTEDEN, Heteroptera, Cameroons, 2012; VILLIERS, Tribelocephalidae (Reduv.), revision, 2316.

**Psocoptera.**—BADONNEL, Cameroons, 94; BALL, *Ectopsocus*, Belg. Congo, revision, 108.

**Ephemeroptera.** — LESTAGE, 1375, 1376.

**Dermaptera.**—REHN, Forficulines, S. Cameroons, 1847.

**Orthoptera.** — CHOPARD, Orthopteroidea, Cameroons, 441; JANNONE, Eritrea, I-III, 1129; REHN, J. A. G. & J. W. H., Eumastacidae, pt. I, 1851.

**Collembola.**—MARLIER, Belg. Congo, 1474.

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**Coleoptera.**—FLEUTIAUX, Eucnemidae, revision, 747; MARIE & LESNE, catalogue, additions, 1467.

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**Lepidoptera.**—TALBOT, *Mylothris naziya* f.n. (Pier.), 2190.

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**Coleoptera.**—ALLUAUD, Carabidae, 53; Rev. franç. Ent. 8 1941 p. 6; BALFOUR-BROWNE, *Gyrinus* sp. n., 106; BALTHASAR, *Helictopleurus* sp. n. (Coprid.), 109; BASILEWSKY, *Thryptocerus* sp. n. (Carab.), 128; BECHYNÉ, *Barymela* sp. and abb. n. (Chrysom.), Acta Soc. ent. Bohem. (Čsl.) 40 1943 p. 81; DELKESKAMP, *Episcaphula* spp. n. (Erotyl.), 580; HEINZE, *Philothermus* (Colyd.), 1008; KLEINE, new Brentheids, 1245; LABOISSIÈRE, *Physoma* sp. n. (Haltic.), 1298; LEPESME, *Spermophagus* sp. n. (Bruch.), 2294; LEPESME & VILLIERS, Crossotinae (Lam.), spp. n., 1371; D'ORCHYMONT, Hydrophilidae, 1635, 1637; PAULIAN, *Trigonocolus* sp. n. (Curc.), 1722; PIC, new Clerids, 1758, 1760; SCHEDL, *Xyleborus* sp. n. (Scolyt.), 1983; STRANO, *Caelostomus* (Carab.), spp. n., 2168; VOSZ, *Tracheloporos*, *Metriotrachelus* spp. n. (Curc.), 2330.

**Hymenoptera.**—ARNOLD, Sphegidae, 72.

**Diptera.**—ENDERLEIN, *Euthioza* gen. et sp. n., *Trichempodia* sp. n. (Otidid.), 682; MESSIL, new Tachinids, 1527; SÉGUY, *Coelopa* sp. n., 2038.

**Hemiptera.**—LALLEMAND, *Literna* sp. n. (Cercop.), 1313; POISSON, *Eurymetra* (Gerr.), *Rhagovelia* (Vel.), spp. n., 1783.

**Orthoptera.**—REHN, J. A. G. & J. W. H., Eumastacidae, pt. 1, 1851.

### MAURITIUS.

**Coleoptera.**—D'ORCHYMONT, *Limnebius* spp. n. (Hydroph.), 1635.

**Hymenoptera.**—MASI, *Epitranus* sp. n. (Chalc.), 1484.

**Hemiptera.**—POISSON, *Anisops* sp. n. (Notonect.), 1783.

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**Hemiptera.**—POISSON, *Anisops* sp. n. (Notonect.), 1783.

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**Hymenoptera.**—MASI, *Tetrastichus* sp. n. (Euloph.), 1484.

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**Insecta.**—ZHADIN, freshwater insects, U.S.S.R., 2447A.

**Coleoptera.**—D'ORCHYMONT, *Hydraena* (Hydroph.), Asia Minor, 1655, 1656; Palpicornia, Syria, Lebanon, list, 1658.

**Hymenoptera.**—ZHELOKOVITZEV, Tenthredinidae, Armenia, 2449.

**Lepidoptera.**—BOURSIN, Agrotida, Caucasus, Armenia, 274; WILTSHIRE, new records, Iran, 2410; *Papilio* spp., deserts of S.W. Asia, 2411.

**Diptera.** — RUBTZOV, Simuliidae, U.S.S.R., revision, 1932.

**Ephemeroptera.**—CHERNOVA, R. II, Turkestan, 430.

**Odonata.**—VALLE, Centr. W. Asia, 2275.

**Dermaptera.**—BURR, Turkey, 343.

**Orthoptera.**—MISHCHENKO, *Gratidia* (Phasm.), U.S.S.R., key, 1540; MISHCHENKO, *Phlocerus* (Acrid.), Caucasus, revision, 1541.

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**Coleoptera.**—BALTHASAR, Scarabaeids, Fukien Prov., China, 110; BORCHMANN, Heteromera, China, 257; BRUCE, Cryptophagidae, Burma, 304; ERMISCH, Mordellidae, Formosa, cata-

logue, suppl., 685; GOECKE, Donaciids, 851; GRESSITT, Cerambycids, China, pt. XI, 908; Eumolpids, China, 909; KLEINE, Brenthids, French Indo-China, 1244; OHAUS, *Mimela* (Rutel.), revision, 1622; D'ORCHYMONT, *Armostus* (Hydroph.), revision, 1641; Hydrophilidae, Tibet, 1654; Vosz, Rhynchitinae (Curc.), Indo-China, 2329.

**Hymenoptera.**—GADD, Euplectrini (Euloph.), Ceylon, 810; HEDICKE, Apidae, Manchuria, Tibet, 989; MALAISE, Tenthredinoidea, S.E. Asia, 1450; REINIG, *Bombus* spp. (Apid.), Afghanistan, 1860.

**Lepidoptera.**—BERNARDI, *Aporia* revision of *agathon* group (Pier.), 197; CORBET, *Euthalia* group *aconthea* (Nymph.), revision, 507; butterflies, China, obtained by Osbeck in 1751, 508; SCOTT, Sphingidae, Darjeeling and Sikkim (contd.), 2029; SEVASTOPULO, Heterocera, Calcutta, list, 2049; Tukdah, Bengal, lists, 2050, 2051; WYNTER-BLYTH, butterflies, India, 2433, 2434.

**Diptera.**—ALEXANDER, China, pt. 6, 35; BROMLEY, Asilids, China, revision, 295; CHENG, Syrphidae, China, list, 428; LINDNER, Stratiomyiidae, China, 1394; PARENT, Dolichopodids, China, 1692; RAPP & COOPER, Psychodidae, India, China, Japan, check list, 1826.

**Hemiptera.**—YOUNG, Aleurodidae, Szechwan, list, 2438.

**Orthoptera.**—GÜNTHER, new Phasmidae, China, 944; Acrididae, Fokien, 945.

**Thysanura.**—SILVESTRI, Machilidae, Japan, 2075.

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pines, 1153; JORDAN, *Xenocerus* (Anthrib.), new spp. and subsp., Philippines, Celebes, Palawan, 1189; KLEINE, Brenthidae, Lycidae, Malacca, 1241; LABOISSIÈRE, new Galerucidae, Philippines, 1293; OHAUS, *Mimela* (Rutel.), revision, 1622; D'ORCHYMONT, Hydrophilidae, 1631, 1635, 1641, 1648; PAULIAN, *Philharmostes*, *Eusphaeropeltis* (Trog.) Indo-Malaya, key, 1728; *Saprosites* (Aphod.) Indo-Malaya, key, spp. n., Philippines, Celebes, 1729; SCHEDL, Scolytids, 1980, 1982, Philippines, Java; VOSS, Curculionids, 2325, 2328; ZIMMERMAN, *Ampagia* sp. n. (Curc.), Philippines, 2452.

**Hymenoptera.**—MAA, *Xylocopa* spp. n. (Apid.), Philippines, 1422; MAO, *Laminatarsus* spp. n. (Bracon.), Philippines, 1461.

**Lepidoptera.**—CORBET, butterflies, N. Kedah, 504; *Euthalia* group *aconthea* (Nymph.), revision, 507; DEBAUCHE, Geometridae, Celebes, 567; VAN REGTEREN ALTENA, *Tagiades* (Hesp.), Java, key, 1845; RILEY, Lycaenidae, Riordinidae, revision, Mentawi, 1881.

**Diptera.**—BOHART & FARNER, new Culicidae, Philippines, 252; RAPP & COOPER, Psychodidae, Malay Penin., Philippines, E. Indies, check list, 1826.

**Dermaptera.**—STONE & FARNER, *Aedes* sp. n. (Culic.), Philippines, 2149; TAYLOR, *Anopheles* (Culic.), Malayan region, 2196.

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**Diptera.**—CRESSON, Psilopiniae (Ephydr.), 534.

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**Diptera.**—KNIGHT, BOHART, R. M. & G. E., mosquitos, keys, 1250; LEE & WOODHILL, Anophelines (Culic.), 1337.



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**Orthoptera.**—WILLEMSE, *Mossula* sp. n., New Britain, *Sexava* sp. n., Lou I., (Tettig.), 2395.

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**Lepidoptera.**—BAKKER, *Taenaris di-ana* f.n. (Amathus.), Halmahera I., 98.

**Diptera.**—HERING, *Dacopsis* gen. et sp. n. (Trypet.), Amboina, 1043.

**Hemiptera.**—BLÔTE, *Agapophyta* spp. n. (Pentat.), Key I., Aru I., Buru, 241; LALLEMAND, *Clovia* sp. n. (Cercop.), Obi Is., 1312.

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*Reichenbachia reichei* characters p. 240 (1944); *juxtairrita* p. 347, *vinusqua* p. 348, *nettel*i p. 350, *dentisterna* p. 352,



*jaliscoensis* p. 357, *quotuma* p. 360, *guerenensis* p. 363, *sonorensis* p. 371, *phantasmoides* p. 376, *dampfi* p. 377 (with subsp. n. *obsoleta* p. 380) Mexico, *serapha* p. 354, *bicuspidata* Guatemala spp. n.; *bifoveata* subsp. n. *pacifica* Mexico p. 368; *reichi* p. 365, *falsa* p. 374 ♀♀ (with var. n. *pipa* Mexico p. 375) 1945 figs., PARK Bull. Chicago Acad. Sci. 7.

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*Rhinosceps* (*Rafhrhis* subgen. n.) *orbis* sp. n. Dutch Guiana p. 283, key p. 285; *dybasi* var. n. *ocularis* Mexico p. 341 figs., PARK t.c.

*Scalenarthrus parrai* sp. n. Mexico p. 401; *concurvus* ♀ p. 402 figs., PARK t.c.

*Sebaga centralis* subsp. n. *ocampi* p. 333; *neotropica* sp. n. p. 334 Mexico figs., PARK t.c.

*Thesiastes ramtus* sp. n. Dutch Guiana p. 279 fig., PARK t.c.

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*Cephennium* (*Phennecium*) *hipponense* sp. n. Algeria p. 173; (*P.*) *theryanum* subsp. n. *lutescens* Tunisia p. 174 fig., NORMAND Rev. franç. Ent. 7 (1940) 1941.

*Euconnus* (*Napochus*) *murielae* sp. n. England p. 275, LAST Ent. mon. Mag. 81.

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*Speonesiotes* revision of Balkan spp. pp. 111-125, key to spp. p. 125; (*Kulzeria*) *koritoensis* subsp. n. *planaensis*, *brevicornis*; (*K.*) *mülleri* sp. n. p. 116; (*S.*) *remyi* (with subsp. n. *winkleri* p. 121, *divinensis*), (*S.*) *spalacis* p. 122, (*S.*) *rambouseki* p. 123, (*S.*) *schweitzeri* p. 124 spp. n. Herzegovina figs., JEANNEL Rev. franç. Ent. 8 1941.

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*Agathidiodes* n.n. for *Agathodes* Port. nec Guenée p. 169, PORTEVIN Rev. franç. Ent. 10 1944.

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*Cyrtusa sinensis* China p. 77, growel-  
lei, *brasiliensis* Brazil p. 78, spp. n., PORTEVIN t.c.

*Hydnobius lucens* sp. n. Manchuria p. 75, PORTEVIN t.c.—*H.* key to N. European spp.; *hyperboreus* p. 74, *claviger* p. 76 spp. n. figs., STRAND Norsk ent. Tidsskr. 7 1943 [? 1944].—*H. multi-striatus* new to Sweden p. 123, JANSSEN Ent. Tidsskr. 66.—*H. forticornis* see *Metahydnobius*.

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*Pseudocyrtusa* gen. n., *australis* sp. n. Colombia p. 78, PORTEVIN t.c.

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*Aeletes* (*Abaeletes* subgen. n.) *perroti* sp. n. Tonkin p. 31 fig., DE COOMAN t.c.

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*Aponemosoma* subgen. n. (type *caucasicum* Ménétr.) see *Nemosoma*.

*Léveillésona* gen. n. for *Nemosoma fulva* Lév. p. 139 fig., LEPESME & PAULIAN Rev. franç. Ent. 10 1944.

*Nemosoma* keys to allied gen. p. 139, to subgen. (*Paranemosoma*, *Aponemosoma* subgen. n.) p. 139; *unicornutum* sp. n. no locality; (*Nemosoma* Reitt. a valid subgen.) p. 141 figs., LEPESME & PAULIAN t.c.

*Nemosoma* see *Nemosoma*; *fulva* see *Léveillésona*.

*Paranemosoma* subgen. n. (type *punctatum* Lév.) see *Nemosoma*.

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*Boreades* gen. n. for *Cercometes abdominalis* Er. p. 139 figs., PARSONS t.c.

*Camptodes* (*Eucamptodes*) *nigerrimus* sp. n. Arizona p. 241, PARSONS t.c.

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*Meligethopsis* gen. n. p. 25, *singularis* sp. n. China p. 26 figs., REBMANN Ent. Bl. 40 1944.

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*Tritoma* Geoff. (= *Mycetophagus* Hellw.) p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.

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*Abromus zariquieyi* subsp. n. *doderoi* Barcelona p. 94; *palaui* sp. n. Majorca p. 96; key p. 98 figs., ESPAÑOL COLL Eos 21.

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*Craspedophilus* gen. n. p. 115, *kraatzi* p. 116 (with var. n. *minor*), *wagneri* p. 117 Cameroons, *insularis* Fernando Po p. 118 spp. n., HEINZE t.c.

*Discogenia trilineata* p. 259, *disposita* p. 262 spp. n. Belgian Congo, JOHN Arb. morph. taxon. Ent. Berlin 7 1940 [not seen.].—*D. burgeoni* p. 402, *schoutedeni* p. 403, *latipenis*, *bilineata* p. 404, *pulchripicta* p. 405 spp. n. Belg. Congo, JOHN Rev. Zool. Bot. afr. 35 (1941) 1942.

*Erotylathrus septemcostatus* subsp. n. *philippinensis* Philippines; *birói* sp. n. Australia p. 123 figs., HEINZE Ent. Bl. 39 1943.

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*Parmaschema defrictum* p. 19 (1942), *hexagonale* p. 137 [i.e. 141] Sumatra spp. n.; *nodimargo* subsp. n. *latus* Java p. 138 [i.e. 141] (1943) figs., JOHN Rev. franç. Ent. 9.

*Philothermus seminiger* subsp. n. *fuscus* p. 165; *korschefskyi* sp. n. p. 166 Madagascar figs., HEINZE Ent. Bl. 38 1942.

*Praviclava* gen. n. p. 104, *corrosa* sp. n. Ukerewe I., Centr. Africa p. 106 figs., JOHN Mitt. dtsh. ent. Ges. 10 1941.

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*Teredomorphus* gen. n. for *Teredus glaber* Kraatz, *rufipes* Kraatz p. 104, HEINZE t.c.

*Teredus glaber*, *rufipes* see *Teredomorphus*.

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*Aegithus andreae* var. n. *denticulata* Surinam p. 57 fig., DEELDER Zool. Meded. 24 1942.

*Alloitolus* Hope (= *Zonarius* auct.) p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.

*Amblyopus murrayi* var. n. *interruptus* Cameroons p. 84 fig., DEELDER Zool. Meded. 24 1942.

*Amblyscelis* Gorh. (= *Petaloscelis* Gorh. preocc.) *kelleni* Gorh. (= *instabilis* Gorh.) designated type p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.

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*Brachysphaenus collaris* sp. n. ? Brazil p. 60 ; *dispilotus* var. n. *immaculatus* Colombia p. 61, DEELDER t.c.

*Callischyrus brasiliensis* sp. n. Brazil p. 83 fig., DEELDER t.c.

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*Cyrtomorphoides minimus* sp. n. Celebes p. 96, DEELDER Zool. Meded. 24 1942.

*Cyrtomorphus craticularis* var. n. *interruptus* Sumatra ; *helleri* p. 85, *vethi* Java, *laetus* Sumatra p. 86 spp. n. ; *pantherinus* var. n. *confusus* Java p. 87 figs., DEELDER t.c.

*Cyrtotriplax* Crotch (= *Tritoma* F. nec Geoffr.) p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.

*Encaustes verticalis* subsp. n. *sumatrensis* Sumatra p. 73, DEELDER Zool. Meded. 24 1942.

*Episcapha javanica* sp. n. Java p. 106, DEELDER t.c.—*E.* key to African spp. p. 50, DELKESKAMP Dtsch. ent. Z. 1943 1943.

*Episcaphula* (key p. 42) *senegalensis* characters p. 30 (with subsp. n. *connectens* p. 31) ; (*E.*) *megatoprepa* subssp. n. *carinata* E. Africa, *tessmanni* Centr. Africa p. 38 ; (*E.*) *mouati* ff. n. *nigroapicalis*, *nigricollis* Madagascar ; (*E.*) *trigona* p. 33, (*E.*) *rudithorax* p. 38, (*E.*) *stratella* p. 41 E. Africa, (*E.*) *tenuicornis*, (*E.*) *laticornis* p. 34, (*E.*) *medioconjuncta*,

(*E.*) *ovalis* p. 40, (*E.*) *elisae* p. 41 Cameroons, (*E.*) *oblonga* Centr. Africa p. 39, (*E.*) *parva* Rhodesia p. 40 spp. n. ; (*E.*) *lindiana* Hell. a subsp. of *repanda* p. 33 figs., DELKESKAMP t.c.—*E. nigromaculata* Cameroons p. 110, *rufocollaris* Nyasaland spp. n. ; *sexsignata* var. n. *immaculata* Cameroons p. 111 figs., DEELDER Zool. Meded. 24 1942.—*E. tetrasticta* see *Neothallis*.

*Erotylus crotchii* p. 63, *kuhnti* p. 64, *laetus* Peru (with var. n. *nigrofasciatus* Amazonas) p. 64, *spectabilis* locality unknown p. 66, spp. n., DEELDER Zool. Meded. 24 1942.

*Homocotelus niger* sp. n. Peru p. 70, DEELDER t.c.

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*Megalodacne* a valid genus p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.

*Metallencastes* see *Aulacochilus*.

*Micrencaustes javana* Java p. 74, *sumatrensis* Sumatra p. 76 spp. n. ; *metallica*, *dehaani*, *papuana* distinguishing characters ; *sextguttata* Gorh. (= *sextipustulata* Gorh.) p. 75, DEELDER Zool. Meded. 24 1942.

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*Microlanguria* Lewis (= *Platycladoxena* Kraatz), characters p. 119, key to African spp. p. 121 ; *angulosa* sp. n. Belg. Congo p. 123 figs., VILLIERS Rev. franç. Ent. 7 (1940) 1941.

*Microsternus javanus* Java p. 113, *sumatranus* Sumatra p. 114, spp. n., DEELDER Zool. Meded. 24 1942.

*Mimodacne* Bed. (= *Libycodacne* Hell.) p. 112, DEELDER Zool. Meded. 24 1942.

*Mycotretus ornatus* var. n. *partialis* Colombia p. 88 fig., DEELDER t.c.

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*Neothallis tetrasticta* Gorh. from *Episcaphula* p. 111, DEELDER t.c.

*Neotrimota* gen. n., *arrowi* sp. n. Sumatra p. 98, DEELDER t.c.

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*Paracladoxena* characters p. 132, key to African spp. p. 133 ; *arrowi* p. 134, *kivuensis* p. 137 Belg. Congo, *conveza* Cameroons p. 138 spp. n. figs., VILLIERS Rev. franç. Ent. 7 (1940) 1941.

*Penolanguria* characters p. 125, key to spp. p. 126; *longemaculata* p. 127, *jarrigei* p. 128, *suzelae* p. 129 spp. n. Belg. Congo figs., VILLIERS t.c.

*Petaloscelis* see *Amblyscelis*; *anthracina* see *Tritoma*.

*Platycladoxena* see *Microlanguria*.

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*Rhopalotriplax* gen. n., *laeta* (type), *javana* spp. n. Java, Sumatra p. 97, DEELDER Zool. Meded. 24 1942.

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*Spondotriplax* Crotch (= *Neotritoma* Heller, *Campotritoma* Heller); *jacobsoni* sp. n. Java p. 94 figs., DEELDER Zool. Meded. 24 1942.

*Tamboria kerkhoveni* sp. n. Java p. 114 fig., DEELDER t.c.

*Thallisellodes* Arrow valid gen. p. 118, VILLIERS Rev. franç. Ent. 7 (1940) 1941.

*Thaumastodacne* gen. n., *javana* sp. n. Java p. 115 figs., DEELDER Zool. Meded. 24 1942.

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*Triplacidea* Gorh. (= *Trimota* Hell.) p. 118, ARROW Proc. R. ent. Soc. Lond. (B) 14.

*Triplax* scope discussed p. 118, ARROW t.c.

*Tritoma* F. (= *Satelia* Lew.) *amethystina* Sumatra p. 90, *cameruna* Cameroons p. 91 spp. n.; *indica* var. n. *thoracica* Sumatra, Java p. 92; *nigripennis* Mots. (= *sumatrensis* Gorh.) p. 94 (with var. n. *arroyi* Sumatra p. 93); *anthracina* Gorh. from *Petaloscelis* p. 90; *kolbei* n. n. for *dorsalis* Kolbe nec Gorh.; *caseyi* n. n. for *nigripennis* Cas. nec Mots.; *africana* n. n. for *tibialis* Arrow nec Fairm. p. 94, DEELDER Zool. Meded. 24 1942.—*T. barbara* sp. n. Belg. Congo p. 29 fig., DELKESKAMP Dtsch. ent. Z. 1943 1943.—*T. F.* nec Geoffr. (Mycetophagidae) see *Cyrtotriplax*.

*Zonarius* Hope (= *Poecilasthus* Bl.) p. 117, ARROW Proc. R. ent. Soc. Lond. (B) 14.—Cf. also *Alloiotelus*.

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*Catapotia* Thoms. (= *Cremnodes* Gerst. nec Forst. (Hym.)) p. 41, MADER Ent. Bl. 39 1943.

*Cremnodes* see *Catapotia*.

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*Atomaria* morphological notes on some spp. pp. 129–134, WAGNER Ent. Bl. 39 1943.

*Caenoscelis subdeplanata* a valid sp. not synonym of *ferruginea* pp. 131–134 figs., PALMÉN Ann. ent. fenn. 7 1941.

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*Cryptophagus aurovestitus* p. 3, *malaisei* p. 4, spp. n. N.E. Burma figs., BRUCE Ark. Zool. 36A no. 4.—*C.* notes on and synonymy of French spp. pp. 146–156; MÉQUIGNON Rev. franç. Ent. 11.—*C. distinguendus* Sturm (= *stramentii* Donisth.) p. 214, HINTON Monogr. Beetles assoc. Stored Products 1.

*Henoticus* Thoms. (= *Coniophthalma* Kangas) p. 203 (note), HINTON t.c.



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*Coccinella septempunctata* early stages p. 568 figs., BAGAL & TREHAN t.c.

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*Cercillum fusciceps* see *Cryptopleurum*.

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*cercyon*, *Oedocercyon* p. 2, *Paracycreon*, *Acycreon* p. 3 subgen. n.), key to subgen. p. 3; (*A.*) *collarti* p. 4, (*Cercyon*) *luteus* p. 10, (*C.*) *lutulentus* p. 13, (*C.*) *luxus* p. 12 Belg. Congo, (*P.*) *moquerysi* Gabun p. 6 spp. n.; (s. str.) *putricola* Woll. (= *flavocinctus* Rég., *aethiops* Knisch); (s. str.) *feai* p. 7, (*Clino-cercyon*) *fulvinasus* p. 13, (*O.*) *anisotomoides* p. 14 further descriptions; (s. str.) *tigréanus* G. & H. (= *limbatum* Roth nec Mann., *limbicollis* Rég.) p. 13 figs., D'ORCHYMONT op. cit. 18 1942 no. 26.—*C. littoralis* p. 1, *depressus* p. 2, *analis* p. 3 larvae figs., BACKLUND Förh. K. fysio. Sällsk. Lund 15 no. 13.—*C. fusciceps* see *Cryptopleurum*; *cribriceps*, *buccalis* see *Pelosoma*.

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*Enoplolema* gen. n. for *Lema adhaerens* Weise p. 23 fig., HEINZE Ent. Bl. 39 1943.

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*Coscinoptera nigerrima* sp. n. Argentina p. 447 fig., GUÉRIN Rev. Ent. Rio de J. 16.

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*Melitonoma rugosicollis* p. 26, *uelensis* p. 27, *maynéi* p. 28, *collarti* p. 29, *decemmaculata* p. 32, *scutellaris* p. 33, *védysi* p. 34 spp. n.; *punctipennis* ♂ p. 30 (with subsp. n. *luvungiensis*, *kata-gensis* p. 31) Belg. Congo, BURGEON t.c.

*Miopristis* (*Plecomera* ?) *seydeli* p. 16, *vanderijsti* p. 17, spp. n. Belg. Congo, BURGEON t.c.

*Peploptera uelensis* p. 24, *overlaeti* p. 25, *saegeri* p. 26 spp. n. Belg. Congo; *angulofasciata* Jac. (= *angustofasciata* Clav.) p. 25, BURGEON t.c.

*Protoclytra seydeli* p. 20, *vreuricki* p. 21, *forcipata* p. 22 (with var. n. *unimaculata* Kenya p. 24) spp. n. Belg. Congo, BURGEON t.c.

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*Aulexis* key to Chinese spp. p. 141; *abbreviata* Gress., *brevidentata* Gr., *magniscapa* Gr. p. 142, *unicolor* Gr., *ventralis* Gr. p. 143 from *Syneta*; *hochii* Chen (= *S. hainana* Gr.); *obscura* sp. n. China p. 142, GRESSITT Lingnan Sci. J. 21.

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*Menius viridicupreus* p. 289, *collarti* p. 291, *katangensis* p. 293 spp. n.; *flavimanus* subsp. n. *scheitzae* p. 290 Belg. Congo, BURGEON t.c.—*M. pauliani* p. 115, *lepesmei* p. 116, spp. n. Cameroons, BURGEON op. cit. 35 1941.

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Russia; *nicaeensis* abb. n. *fraterna*, *designata* France p. 10, BECHYNÉ Ent. Listy 8.

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*Chartergus trichiosomus* see *Parachartergus fulgidipennis griseus*.

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*Gymnopolybia angulata* F. (= *Mischocyttarus ruficornis* Cam.) p. 337, RICHARDS Trans. R. ent. Soc. Lond. 98.

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*Stelopolybia paraensis* var. n. *obscurior* Ecuador p. 295; *fulvofasciata* Deg. (= *Polistes hectica* F., *Polybia vulgaris* Ducke) p. 296; *pallipes* var. n. *fulvanceps* Colombia p. 297, BEQUAERT Bull. Mus. comp. Zool. Harv. 94 1944.

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156, *apophysis* Peru p. 157, *bilineata* p. 160, *acinaces* p. 165, *genalis* p. 169 Mexico, *rufa* p. 160, *paranensis* p. 170 Brazil, *lineatifemur* Costa Rica p. 162, *gracilis* p. 168, *maculifrons* p. 172 Argentina, spp. n.; *orizabensis* Cam. & other spp. from *Polyaenus* pp. 159, 173; *pretiosa* Vier. from *Polyaenidia* p. 166; *mexicana* Cress. p. 158, *propinqua* Cress. p. 166, *variegata* Br. p. 170, *incerta* Cress. p. 171 from *Mesostenus*, CUSHMAN t.c.—*C. acolhua* see *Glodianus*; *pachymene* see *Photocryptus*; *sumichrasti* see *Trapezonalis*.

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*Olyra sublineata* early stages p. 20, TOWNSEND J. E. Afr. n. H. Soc. 18.

*Opistodontia obscura* sp. n. Belg. Congo p. 74, HERING Rev. Zool. Bot. afr. 35 1941.

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*Pseudolyra major* sp. n. Belg. Congo p. 80 fig., HERING t.c.

*Subarchaeopacha* gen. n., *alberici* sp. n. Kivu p. 137, DUFRANE Bull. Ann. Soc. ent. Belg. 81.

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*Mariaeia* gen. n. p. 141, *kivensis* sp. n. Kivu p. 142, DUFRANE t.c.

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*Altha melanopsis* larva p. 194, SEVASTOPULO J. Bombay n. H. Soc. 45.

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*Hysterocladia unimana* sp. n. Brazil p. 87 fig., HOFF Mitt. dtsh. ent. Ges. 11 1943.

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*Analyta pervinca* sp. n. Belg. Congo p. 165, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Autocosmia* see *Metasia*.

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*Coleoneura* Rag. (= *Meyrickia* Rag., *Hylaletis* Meyr., *Meyriccia* Hmps.) *trichogramma* Meyr. (= *taconovella* Rag.) from *Tirathaba* p. 100, GHESQUIÈRE Rev. Zool. Bot. afr. 37 1943.

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*Desmia bourquignoni* **sp. n.** p. 121 (with **ab. n. badia** p. 122) Belg. Congo, GHESQUIÈRE t.c.

*Diaphania amicalis* Swinh. (= *Glyphodes bipindalis* Strd., *Margaronia streptostigma ephypnias* Meyr.) p. 154, GHESQUIÈRE t.c.

*Elisabethinia* **gen. n.** (nr. *Spectratrota*) p. 236, *cosmia* **sp. n.** Belg. Congo p. 237, GHESQUIÈRE t.c.

*Eloeidiphilos* see *Epimorius*.

*Endotricha rosellita*, *rosina* **spp. n.** Belg. Congo p. 228, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Glyphodes bipindalis* see *Diaphania amicalis*.

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*Leptoses* **gen. n.** (nr. *Lepidogma*), *sophronicos* **sp. n.** Belg. Congo p. 236, GHESQUIÈRE t.c.

*Marasmia* Led. (= *Prodotaula* Meyr.), *grisealis* p. 124, *lilicicola* p. 125, **spp. n.** Belg. Congo, GHESQUIÈRE t.c.

*Margaronia streptostigma ephypnias* see *Diaphania amicalis*.



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*Meyrickia* see *Coleoneura*.

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*Obutobea* gen. n. (nr. *Coenodomus*) p. 239, *chrysophora* sp. n. Belg. Congo p. 240, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Pyrallis ocellalis* Led. (= *circozyga* Meyr.); *pascualis*, *pastoralis* spp. n. Belg. Congo p. 208; *praedicta* n. n. for *licnospilae* Meyr. p. 209, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Schoutedenidea* gen. n. (nr. *Pocopaschia*), *ophigona* sp. n. Belg. Congo p. 235, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Sybrida amethystalis* p. 217 (with *ab. n. roseolurida*), *angulata* p. 218, *latericia*, *roccelina* spp. n.; *dipenthes* (from *Sacada*) *ab. n. fulva*; *rhodinatis* Hmps. (from *Sacada*) *abb. n. atroviolacea*, *subviolacea* p. 219 Belg. Congo, GHESQUIÈRE t.c.

*Syllepta tumidipes* Hmps. (= *Conogethes empalacta* Meyr.) p. 152, GHESQUIÈRE t.c.

*Syngamia aeruginosa* p. 126, *xanthofumosa* p. 128, spp. n. Belg. Congo, GHESQUIÈRE t.c.

*Tegulifera chrysoproctalis* *abb. n. nigra*, *rubra* Belg. Congo p. 214, GHESQUIÈRE t.c.

*Teliphasa (Parasarama) dibelana* sp. n. Belg. Congo p. 238, GHESQUIÈRE t.c.

*Tetralopha scortealis* Led. (= *slossonii* Hulst) p. 312, HEINRICH in Poos & HETRICK J. econ. Ent. 38.

*Tioga (Afra subgen. n.) cinerea*, (*A.*) *aethalea*, (*A.*) *zophoptera* spp. n. Belg. Congo p. 234, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

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*Triphassa confusa*, *maynei* p. 215, *smaragdina* spp. n.; *philerastis* *ab. n. attenuata*; *victoralis* *ab. n. pyritoviridis* p. 216 Belg. Congo, GHESQUIÈRE Ann. Mus. Congo belge Zool. (3) Sect. ii 7 1942.

*Trithyris aethiopicalis* sp. n. Belg. Congo p. 128, GHESQUIÈRE t.c.

*Ulopeza ovigeralis* sp. n. Belg. Congo p. 131, GHESQUIÈRE t.c.

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*Adela albicinctella* f. n. *interrupta* Switzerland p. 400, WEBER t.c.

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*flavipes*; *hyalescens*, *forcipata*, *propinquans*, *fulvescens*, *longinquans*, *vergens*, *arcuans*, *obsolescens*, *forcipigera*, *quayanensis*, *regens*, *fuscens*, *nigricans*, *fumigans*, *minuens*, *fulgescens*, *evanesens*, *simulans*, *pimpliformis*, *obscurans* see *Neosciara*.

*Megalosphys hirtipes*, *pedunculata*, *nigricolor* see *Pseudosciara hirtella*.

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*Eupeitenus* see *Penthetria*.

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*Penthera* see *Plecia*.

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*Plecia* Wied. (= *Penthera* Phil., *Rhinoplectia* Bell.) p. 390, HARDY t.c.

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*Pseudosimulium* see *Simulium*.

*Psilopelmia* see *Simulium*.

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*cum* pp. 365, 508 Yakutsk, (G.) *pavlovskii* lower R. Amur, Ussuri p. 530, (*Stegopterna*) *duodecimatum* pp. 310, 493, (*Astega*) *edwardsianum* pp. 319, 496 E. Siberia, (A.) *nigrum* Transcaucasia pp. 322, 497, (A.) *ovtshinnikovi* Kazakhstan pp. 323, 498, (A.) *persicum* Iran pp. 325, 495, (A.) *bilineatum* N. Ural pp. 326, 494, (A.) *biseriatum* Tibet pp. 330, 496, (*Eusimulium*) *derzhavini* Kamtchatka pp. 342, 498, (*Nevermannia*) *heptapotamicum* Kazakhstan pp. 354, 500, (N.) *subgriseum* N. Kirghizia pp. 355, 481 (N.) *pseudonearcticum* Kamtchatka pp. 356, 499, (N.) *znokoi* Transcaucasia pp. 359, 499, (*Byssodon*) *transiens* pp. 361, 502 Yakutsk, (*Odagmia*) *sbergi* Tadzhikistan (a synonym of *S. alajensis* Rubtsov sp. n. in Vopr. kraev. Parasit. 3 1938 pp. 193–198 [not seen] p. 530) pp. 368, 509, (O.) *deserticola* Mongolia (also p. 530), (O.) *kozlovi* Tibet pp. 371, 510, (O.) *coarctatum* N.W. China, Kazakhstan pp. 374, 511, (O.) *desertorum* Mongolia pp. 375, 512, (O.) *ferganicum* Ferghana pp. 376, 512, (O.) *kiritschenkoi* Iran pp. 389, 513, (*Boophthora*) *bujakovi* E. Siberia pp. 393, 514, (*Schönbaueria*) *giganteum* W. Siberia pp. 398, 503, (S.) *fridolini* N. Ural pp. 401, 504, (S.) *flavoantennatum* Mongolia pp. 402, 506, (S.) *kuznetzovi* Murman pp. 403, 503, (S.) *transbaikalicum* E. Siberia pp. 403, 504, (S.) *subpusillum* Russia, Urals, E. Siberia pp. 404, 505, (*Wilhelmia*) *veltistshewi* Tadzhikistan p. 413, (W.) *ivashentzovi* Russia pp. 414, 506, (W.) *bianchii* Yakutsk pp. 415, 476, (W.) *lama* Mongolia pp. 416, 508, (*Simulium*) *bukovskii* Crimea pp. 418, 515, (S.) *arensae* pp. 419, 515, (S.) *splendidum* pp. 423, 517, (S.) *relictum* pp. 425, 516, (S.) *curvitaris* pp. 434, 519, (S.) *submorsitans* pp. 435, 519 Siberia (pre-occupied by Séguy and renamed *aemulum* n. n. p. 531), (S.) *rubroflavifemur* Sintsien pp. 436, 518, (S.) *subvariegatum* Transbaikalia pp. 439, 488, (S.) *wagneri* Altai pp. 450, 518 spp. n.; (*Nevermannia*) *maculatum* subsp. n. *ussurianum* Ussuri pp. 353, 501, (O.) *ornatum* varr. n. *caucasicum* Caucasus p. 387, *flaveola* Alatau, N. Kirghizia, Altai, subsp. n. *frigidum* Siberia p. 531; (W.) *salopense* var. n. *turgaicum* Kazakhstan pp. 411, 507; (*Simulium*) *tuberosum* var. n. *polare* E. Siberia p. 422; (S.) *venustum* subsp. n. *kamtshaticum* Kamtschatka, p. 442 figs., RUBTZOVS Fn. de l'URSS Ins. Dipt. 6 1940 no. 6.—

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*Chaetolabis* subgen. n. (type *atroviridis* sp. n.) see *Tendipes*.

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*chironomus*; *festivus* (*lasiomerus*), *taenionotus*, *dorneri* see *Xenochironomus*; *abbreviatus*, *parvilamellatus* see *Cryptochironomus fulvus*; *stylifera*, *obtusilobus*, *farinalis* see *Cryptochironomus psittacinus*; *fumidus* (*incognitus*), *californicus*, *modestus*, *neomodestus*, *dux* (*obscuratus*), *brunneipennis*, *dorsalis* (*longipes*), *fulvipilus*, *stigmaterus*, *decorus* (*similis*, *maturus*, *cayugae*, *distinguendus*), *tuxis*, *hyperboreus*, *utahensis*, *staegeri* (*fasciventris*), *atritibia*, *crassicaudatus* see *Tendipes*; *lucifer*, *tritonus*, *indistinctus* see *T. nervosus*; *serus*, *militaris* see *T. riparius*; *conformis* see *T. pilicornis*; *hyperboreus* var. *meridionalis* see *T. anthracinus*; *imperator* see *T. plumosus*; *brachialis*, *atrimanus*, *lobiferus* (*caliginosus*, *griepkoveni*) see *Glyptotendipes*; *frequens*, *abortivus*, *varus*, *monochromus*, *tenuicaudatus*, *nigrovittatus*, *pseudotener*, *griseus*, *alboviridis*, *curtilamellatus*, *edwardsi* see *Harnischia*.

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p. 138, (*Phytotendipes*) *lobiferus* Say (= *Chironomus caliginosus* Johan., *C. griepkoveni* Kieff.) p. 142 from *Chironomus*; (*D.*) *abruptus* p. 138, (*D.*) *obruptus* p. 139, (*Phytotendipes*) *testaceus* p. 140, (*G.*) *amplus*, (*G.*) *dreisbachi* p. 145, (*G.*) *seminole* U.S.A., (*G.*) *unacus* Quebec p. 146 spp. n. figs., TOWNES Amer. Midl. Nat. 34.

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*Lauterbornia* see *Tanytarsus*.

*Leptochironomus* see *Harnischia*.

*Limnophyes alpicola* sp. n. Tyrol p. 6 fig., GOETGHEBUER Bull. Mus. H. n. Belg. 17 1941 no. 37.

*Limnotendipes* see *Tendipes*.



*Lithotanytarsus emarginatus* distribu-  
tion p. 713, THIENEMANN Arch. Hydro-  
biol. 39 1944.

*Metriocnemus* key to pupae p. 156  
figs., THIENEMANN op. cit. 38 1941.—  
*M. (Heterotrissocladius) scutellatus* p.  
15, *imberbipes* p. 16, spp. n. Austria  
fig., GOETGHEBUER Bull. Mus. H. n.  
Belg. 18 1942 no. 46.

*Micropsectra proximalis* sp. n. Austria  
p. 3 fig., GOETGHEBUER t.c.

*Microtendipes* key to Nearctic spp. ;  
*caelum* sp. n. p. 23 ; *caducus* n. n. for  
*pallidus* Mall. nec Johan. p. 24 ; *pedellus*  
var. n. *stygius* U.S.A. ; p. var. *aberrans*  
Joh. (= *fascipes* Coq., *deflexa* Wall.) p.  
26 figs., TOWNES Amer. Midl. Nat. 34.

*Omisus* gen. n., *piea* sp. n. U.S.A.  
p. 27 fig., TOWNES t.c.

*Orthocladius janetscheki* sp. n. Tyrol  
p. 7 fig., GOETGHEBUER Bull. Mus. H. n.  
Belg. 17 1941 no. 37.—*O. collarti* sp. n.  
Belgium p. 7 fig., GOETGHEBUER op.  
cit. 17 1941 no. 67.—*O. dispar* sp. n.  
Austria p. 14 fig., GOETGHEBUER op.  
cit. 18 1942 no. 46.

*Parachironomus* see *Harnischia*.

*Paraharnischia* see *Harnischia*.

*Paratendipes* Kieff. (= *Synparatendi-*  
*pes* Bause) p. 27, key to Nearctic spp.  
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Mall. p. 31 from *Chironomus* ; *duplicatus*  
Johan. (= *basalis* Mall. nec Staeg.) ;  
*basidens* p. 30, *thermophilus* p. 31 spp.  
n. U.S.A. figs., TOWNES Amer. Midl.  
Nat. 34.

*Pentapedilum mellense* sp. n. Belgium  
p. 7 fig., GOETGHEBUER Bull. Mus. H. n.  
Belg. 18 1942 no. 46.—*P. coracinum*  
see *Tanytarsus*.

*Phaenopsectra* see *Tanytarsus*.

*Polypeditum* keys to subgen. p. 36,  
to Nearctic spp. pp. 37, 47, 61 ; *Tri-*  
*podura* subgen. n. p. 36 ; (subgen.  
*Polypeditum* Kieff. (= *Propeditum*  
Lenz) p. 46 ; (*T.*) *apicatum* p. 39, (*T.*)  
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*cerus*, (*T.*) *gomphus* p. 42, (*T.*) *floridense*,  
(*T.*) *simulans* p. 43, (*T.*) *digitifer* p. 45,  
(*T.*) *acifer* p. 46, (*P.*) *trigonus* p. 49,  
(*P.*) *pedatum* (with subsp. n. *excelsius*)  
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(*P.*) *ophioides* p. 57, (*P.*) *sulaceps* p. 58,  
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*labeculosum* Mitch. p. 41, (*T.*) *halterale*  
Coq. p. 44, (*T.*) *griseopunctatum* Mall.  
p. 45, (*P.*) *artifer* Curr. p. 53, (*P.*)  
*fuscipenne* Mg. p. 54, (*P.*) *convictum*  
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*ontario* Wall. (= *hirtipes* Mitch. nec  
Johan.) p. 51 ; (*P.*) *calopterus* Mitch. a  
var. of *fallax* Johan. p. 54 ; (*P.*) *illinoense*  
Mall. (= var. *decoloratus* Mall.) p. 57 ;  
(*Pentapedilum*) *sordens* Wulp (= *Tany-*  
*tarsus fulvescens* Johan.) p. 61 figs.,  
TOWNES Amer. Midl. Nat. 34.

*Propeditum* see *Polypeditum*.

*Psectrocladius pallidipes* Belgium,  
*bisetus* Austria, spp. n. p. 12 figs.,  
GOETGHEBUER Bull. Mus. H. n. Belg.  
18 1942 no. 46.—*P. dorieri* see *Rheo-*  
*cricotopus*.

*Pseudochironomus* key to Nearctic  
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p. 17, *middlekauffi*, *chen* p. 18, *air*, *netta*  
p. 19 spp. n. U.S.A. figs., TOWNES  
Amer. Midl. Nat. 34.

*Rheocricotopus dorieri* Goetgh.  
wrongly transferred to *Psectrocladius*  
p. 592, THIENEMANN Arch. Hydrobiol.  
39 1944.

*Rheorthocladius saricola* ♂ p. 114 fig.,  
GOWIN Arch. Hydrobiol. 40 1943.

*Sergentia* see *Tanytarsus*.

*Smittia alpicola* sp. n. Tyrol p. 5 fig.,  
GOETGHEBUER Bull. Mus. H. n. Belg.  
17 1941 no. 37.—*S. flavescens* sp. n.  
Belgium p. 13 fig., GOETGHEBUER op.  
cit. 18 1942 no. 46.

*Spaniotoma nivoriunda* see *Trisso-*  
*cladius*.

*Stenochironomus pulchripennis* Coq.  
designated type p. 84 ; key to Nearctic  
spp. p. 85 ; *browni*, *aestivalis* p. 86,  
*cinctus* p. 87, *unictus* p. 89 spp. n.  
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Mall. p. 88 from *Chironomus* ; *taenia-*  
*pennis* Coq. (= *exquisitus* Mitch.,  
*zonopterus* Mitch.) p. 90 figs., TOWNES  
Amer. Midl. Nat. 34.

*Stictotendipes* see *Tendipes*.

*Syndiamesa alpina* sp. n. Tyrol p. 2  
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*Synparatendipes* see *Paratendipes*.

*Syntendipes* see *Tendipes*.

*Tanytarsus globuliceps* further description p. 4; *humphriesae* var. n. *nigriviridellus* p. 5; *huetti* p. 6 Belgium, *lindneri* Austria p. 5 spp. n. figs., GOETGHEBUER Bull. Mus. H. n. Belg. 18 1942 no. 46.—*T. Wulp* (= *Lauterbornia* Kieff., *Phaenopsectra* Kieff., *Sergentia* Kieff. p. 71) keys to Nearctic subgen. p. 63, to spp. pp. 64, 67, 71, 78; (*Endochironomus*) *nigricans* Johan. from *Chironomus*; (*E.*) *subtendens* p. 65, (*Tribelos* subgen. n. p. 66) (*T.*) *aler* p. 68, (*T.*) *protextus* p. 69, (*Tanytarsus*) *albescens*, (*T.*) *profusus* p. 73, (*T.*) *dyari* p. 75, (*T.*) *vittatus* p. 77, (*Stictochironomus*) *albicrus* p. 79, (*S.*) *quagga* p. 81, (*S.*) *varius* p. 82, (*S.*) *annulicrus*, (*S.*) *lutosus* p. 83, (*S.*) *virgatus* p. 84 U.S.A., (*S.*) *marmoreus* Saskatchewan p. 81 spp. n.; (*Tribelos*) *fuscicornis* Mall. p. 67, (*T.*) *quadripunctatus* Mall. p. 68, (*S.*) *palliatu*s Coq. p. 78, (*S.*) *devinctus* Say p. 79, (*S.*) *naevus* p. 80, (*S.*) *unquiculatus* p. 82 from *Chironomus*; *dimorphus* Mall. (= *fusciventris* Mall.) a var. of *jucundus* Wlk. p. 70; (*Tanytarsus*) *coracinus* Zett. from *Pentapedilum* p. 72; (*T.*) *flavipes* Mg. (= *flavicauda* Mall.) p. 76; *pictulus* Mg. designated type of subgen. *Stictochironomus* p. 77 figs., TOWNES Amer. Midl. Nat. 34.—*T. fulvescens* see *Polypedilum sordens*.

*Telmatogeton sancti-pauli* ♂ ♀, early stages pp. 216–219 figs., SÉGUY Mém. Mus. H. n. Paris (N.S.) 14 1940.

*Tendipes* Mg. keys to Nearctic subgen. spp. pp. 102, 111, 117, subgen. *Limnochironomus* Kieff. (= *Limnotendipes* Lenz) p. 102; subgen. *T.* (= *Campochironomus* Kieff., *Syntendipes* Lenz, *Stictotendipes* Lenz p. 116); (*L.*) *fumidus* Johan. (= *Chironomus incognitus* Mall.) p. 104, (*L.*) *californicus* Johan. p. 105, (*L.*) *modestus* Say p. 106, (*L.*) *neomodestus* Mall. p. 107, (*Kiefferulus*) *dux* Johan. (= *C. obscuratus* Mall.) p. 110, (*Einfeldia*) *brunneipennis* Johan., (*E.*) *dorsalis* Mg. (= *C. longipes* Staeg.) p. 112, (*T.*) *fulvipilus* Remp. p. 119, (*T.*) *stigmaterus*, (*T.*) *decorus* Johan. (= *C. similis* Johan., *C. maturus* Johan., *C. cayugae* Johan., *C. distinguendus* Kieff.) p. 120, (*C.*) *tuxis* Curr. p. 123, (*T.*) *hyperboreus* p. 126, (*T.*) *utahensis* Mall. p. 127, (*T.*) *staegeri* Lundb. (= *fasciventris* Mall.) p. 129, (*T.*) *atritibia* Mall. p. 131, (*T.*) *crassicaudatus* Mall. p. 134 from *Chironomus*; (*L.*) *leucoscelis* p. 104, (*L.*) *aethiops* p. 107, (*L.*) *botaurus* p. 109, (*L.*) *milleri* p. 110, (*Einfeldia*) *chelonina*,

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*Tribelos* subgen. n. (type *jucundus* Wlk.) see *Tanytarsus*.

*Trichocladius* spp. of Lunzer Lake, Austria pp. 294–315 figs., THIENEMANN Arch. Hydrobiol. 39 1942.

*Tripodura* subgen. n. (type *simulans* sp. n.) see *Polypedilum*.

*Trissocladius nivoriunda* Joh. from *Spaniotoma* p. 634, THIENEMANN Arch. Hydrobiol. 39 1944.

*Xenochironomus* Kieff. *xenolabis* Kieff. designated type p. 91; key to Nearctic spp. p. 92; *scopula* sp. n. Quebec p. 93; *festivus* Say (= *lasiomerus* Wlk.) p. 94, *taenionotus* Say, *dornieri* Mall. p. 95 from *Chironomus* figs., TOWNES Amer. Midl. Nat. 34.

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Brazil p. 348, (*M.*) *horribilis* p. 352, (*M.*) *quadricollis* p. 354, (*M.*) *scelestia* p. 415, (*M.*) *manniana* p. 419 Bolivia, (*M.*) *mandator* Costa Rica p. 416, (*M.*) *alecto* p. 422, (*M.*) *pretiosa* p. 428 Peru, (*M.*) *erostrata* Colombia p. 424, (*M.*) *tucumanensis* Argentina p. 425, (*M.*) *proctotricha* p. 430, (*M.*) *percomptaria* p. 433 Ecuador, (*M.*) *bruesi* Lesser Antilles p. 431, (*M.*) *megalyra* Peru, Ecuador p. 436, (*M.*) *scaphula* Panama p. 438 spp. n.; *neolenta* n. n. for *lenta* Alex. nec Harr. p. 334 figs., ALEXANDER Rev. Ent. Rio de J. 16.—*T.* (*Bellardina*) *isiosenica* p. 231, (*Yamatotipula*) *ompoensis* p. 233 (with subsp. n. *labiosa*), (*Y.*) *chonsaniana* p. 234, (*Oreomyza*) *persignata* p. 235 (with subsp. n. *tofina*) p. 236, (*O.*) *lanio* p. 237, (*O.*) *phryne* p. 238, (*Lunatipula*) *fulminis* p. 239, spp. n. N. Korea, ALEXANDER Trans. R. ent. Soc. Lond. 95.—*T.* (*Vestiplex*) *wrangeli* Wrangel I. pp. 265, 269, (*V.*) *kashkarovi* Kirgiz pp. 267, 270, spp. n. figs., SHTAKEL'BERG Bull. Acad. Sci. URSS Sér. Biol. 1944 1944.—*T. sexcincta* sp. n. Brazil p. 50 fig., ALEXANDER Papéis avulsos Dep. Zool. S. Paulo 2 1942.—*T.* (*Microtipula*) *affabilis* p. 247, (*M.*) *efferox* p. 249, (*M.*) *eurymera* p. 250 (with subsp. n. *goyazicola*, *paraguayicola* (Paraguay) p. 253), (*M.*) *feliciania* p. 253, (*M.*) *juquiella* p. 255, (*Eumicrotipula*) *mordax* p. 256 spp. n. Brazil, ALEXANDER op. cit. 6.

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*Ceriana* see *Cina*.

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*Clusiosoma funebre*, *nigridorsale*, *tenuifemorale* see *Clusiomorpha*.

*Dacopsis* gen. n. p. 2, *dacina* sp. n. Amboina p. 3 fig., HERING Siruna Seva 5 1944.

*Dacus guineensis* sp. n. "Guinea" p. 1, HERING t.c.

*Diarrhegmoides bicalcaratus* sp. n. Cape York, Queensland p. 4 fig., HERING t.c.

*Euribia agnata* p. 1, *columbiana* Colombia, *impicta* Sarepta p. 2, spp. n. fig., HERING op. cit. 4 1942.—*E. algerica* sp. n. Algeria p. 52 fig., HERING Mitt. dtsh. ent. Ges. 10 1941.—*E. lindigi* see *Homoeothrix*.

*Gastrozona flavostriata* see *Poecillis* ; *solitaria* see *Paragastrozona*.

*Hexaresta* gen. n. p. 18, *juanita* sp. n. Surinam p. 19, HERING Siruna Seva 3 1941.

*Homoeothrix* gen. n. for *Euribia lindigi* Hend. p. 7, HERING op. cit. 5 1944.

*Homoeotricha* gen. n. for *Paroxyna arisanica* Shir. p. 7, HERING t.c.

*Icteroides* **gen. n.** for *Trypeta japonica* Wied. (= *schneideri* Lw.) p. 6, HERING op. cit. 4 1942.

*Lamproxyrella* key to spp. p. 11, HERING t.c.

*Lyronotum* **gen. n.** for *Acanthoneura seriata* de Meij. p. 112, HERING Mitt. dtsh. ent. Ges. 10 1941.

*Melanotrypana* **gen. n.** for *Acanthophilus benoisti* Séguéy p. 14, HERING Siruna Seva 5 1944.

*Mesoclanis campiglossina* **sp. n.** India p. 13; *limpidapex* Grimsh. from *Tephritis* p. 14, HERING t.c.

*Myopites eximia* variation p. 127, HERING Dtsch. ent. Z. 1943 1944.

*Noëta* (*Pseudonoëta* **subgen. n.**) *paragranum* **sp. n.** Argentina p. 4 fig., HERING Siruna Seva 4 1942.

*Orellia eura* **sp. n.** Sarepta p. 3 fig., HERING t.c.

*Parachlaena* **gen. n.** for *Rhacochlaena greenwoodi* Bez. p. 3, HERING op. cit. 5 1940.

*Paragastrozona solitaria* Hering from *Gastrozona* p. 16, HERING op. cit. 1 1940.

*Pardalaspis migrata* **sp. n.** "E. India" p. 5 fig., HERING op. cit. 5 1944.—*P. pycnanthi* **sp. n.** Belg. Congo p. 91 figs., GHESQUIÈRE Rev. Zool. Bot. afr. 36 1942.

*Paroxyyna ignobilis* Lw. p. 12, *guttata* Wied. p. 13 characters, HERING Siruna Seva 4 1942.—*P. picciola* Big. (= *humilis* Lw.); *peregrina* Lw. (= *planicapitis* Her.); *absinthii* F. (= *cilicornis* Her.); *gemina* Her. a subsp. of *conficta* Curr. (with **subsp. n.** *funalis* New Guinea); *enigma* a subsp. of *chilensis* Macq.; *dissoluta* Lw. (= *spiloptera* Bez.); *snowi* **n. n.** for *obscuripennis* Snow (from *Tephritis*) nec Lw. p. 8; *pelia* Schin. further description p. 9; *anomalina* Bez. (= *munroi* Her.) from *Spathulina*; *difficilis* **subsp. n.** *americana* Rio Grande; *extincta* Peru p. 11, *ophelia* Mexico p. 12 **spp. n.** figs., HERING op. cit. 5 1944.—*P. glaciatrix* see *Tephritis*; *arisanica* see *Homoeotricha*.

*Pliomelaena* Bez. (= *Protephritis* Shir.); *zonogastra* Bez. from *Tephritis*; *sauteri* End. from *Trypeta* p. 6; *translucida* **sp. n.** Ceylon p. 5 fig., HERING Siruna Seva 4 1942.

*Poeciliss flavostriata* Her. from *Gastrozona* p. 112, HERING Mitt. dtsh. ent. Ges. 10 1941.

*Protephritis* see *Pliomelaena*.

*Pseudafreutreta* **gen. n.** p. 7, *fatua* **sp. n.** Kamerun, Accra p. 8 fig., HERING Siruna Seva 4 1942.

*Pseudonoëta* **subgen. n.** (type *crepidis* Her.) see *Noëta*.

*Rhachiptera virginalis* **sp. n.** Brazil p. 8 fig., HERING Siruna Seva 4 1942.

*Rhacochlaena greenwoodi* see *Parachlaena*.

*Rioxa jarvisi* see *Termitorioxa*; *magnifica* see *Sophiroides flammosa*; *caeca* see *Rioxoptilona*.

*Rioxoptilona caeca* Bez. from *Rioxa* p. 32, HERING Siruna Seva 3 1941.

*Sophiroides flammosa* Hend. (= *magnifica* Sen.-Wh. from *Rioxa*) p. 32, HERING t.c.

*Spathulina anomalina* see *Paroxyyna*.

*Staurella circumscripta, flavina, latilimbata, punctilabris* see *Staurocneros*.

*Staurocneros* **gen. n.** for *Staurella circumscripta* Her. (type), *S. flavina* Her., *S. latilimbata* End., *S. punctilabris* Bez. p. 2, HERING Siruna Seva 5 1944.

*Tephritis* key to spp. pp. 17–31; *glaciatrix* End. from *Paroxyyna* p. 10; *pulchra* f. **n.** *pulchrina* Austria; *kogardtauca* Centr. Asia p. 15, *hendeliana* France p. 16 **spp. n.**, HERING t.c.—*T. limpidapex* see *Mesoclanis*; *zonogastra* see *Pliomelaena*; *brahma* see *Actinoptera*; *obscuripennis* see *Paroxyyna snowi*.

*Tephritoresta* **gen. n.** p. 9, *debilis* **sp. n.** Togo p. 10 fig., HERING Siruna Seva 4 1942.

*Terellia latigenalis* **sp. n.** Siberia p. 3, HERING t.c.

*Termitorioxa jarvisi* Tryon from *Rioxa* p. 32, HERING op. cit. 3 1941.

*Trypanea austera* p. 18, *symmophora* p. 27, *vidua* p. 30 Chile, *basiflava* p. 19, *candida* p. 20, *nigricornuta* p. 23, *pseudodaphne, secreta* p. 25, *solvaga* p. 27, *vulpina* p. 31 Argentina, *eminens* p. 21, *semiatrata* p. 26 Nyasaland, *inaequabilis* India p. 22, *pseudodecora* p. 24 Cameroons, *texana* Texas p. 29 **spp. n.**; *duplicata* Wied. (= *neodaphne* Mall.) p. 21 figs., HERING op. cit. 4 1942.



*Trypeta sauteri* see *Pliomelaena* ;  
*japonica* (schneideri) see *Ictericoodes*.

OTITIDAE (ORTALIDAE, PLATYSTOMIDAE, PYRGOTIDAE, TANYPEZIDAE, PHYTALMIIDAE, RICHARDIIDAE, ULIDIIDAE).

Revision of Pyrgotidae, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942 pp. 98-134.

*Apyrgota pictiventris*, *unicolor*, *pubiseta* see *Taeniomastix*.

*Campylocera lurida* Abyssinia p. 132, *denticauda*, *nigridorsum* W. Africa, *tessmanni* Cameroons p. 133, *octomaculata* S.W. Africa p. 134, *spp. n.*, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.—*C. latigenis*, *oculata* see *Hexamerinx*.

*Clemaxia gen. n.*, *angustipalpis* (type) pp. 107, 129, *angusticornis* p. 130, *adolfriderici* p. 131 W. Africa, *angustiangulata* Br. E. Africa p. 129, *spp. n.*, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.

*Clitodoca fenestralis nigripennis* see *Lygihypotyphla*.

*Dicranostira gen. n.* for *Parageloemyia ornata* Her. pp. 102, 111, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.

*Dicrostira gen. n.* pp. 106, 125, *partitigena sp. n.* Cameroons p. 126, ENDERLEIN t.c.

*Epicerella multipunctata* see *Sestroptera*.

*Eumorphomyia bistrigata sp. n.* Nias I. p. 108, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.

*Euthioza gen. n.*, *madagascarensis* (type) Madagascar pp. 106, 117, *nigrocristata* E. Africa p. 118, *latigenis* Sumatra p. 118, *spp. n.*, ENDERLEIN t.c.

*Hexamerinx gen. n.* for *Campylocera latigenis* Hend. (type) pp. 107, 131, *C. oculata* Hend. p. 131, ENDERLEIN t.c.

*Hypotyphla caudata* see *Hypothyphlina*.

*Hypothyphlina gen. n.* for *Hypotyphla caudata* Hend. p. 102, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.

*Lopadops gen. n.* pp. 103, 111, *nigerima sp. n.* Argentina pp. 103, 112, ENDERLEIN t.c.

*Lygihypotyphla gen. n.* for (? *Clitodoca fenestralis*) *nigripennis* Hend. 1924 (? End. 1924) p. 102, ENDERLEIN t.c.

*Metropina gen. n.* pp. 101, 108, *temporalis sp. n.* Togoland pp. 101, 109, ENDERLEIN t.c.

*Parageloemyia ornata* see *Dicranostira*.

*Peltodasia gen. n.*, *vespiformis sp. n.* Centr. Africa pp. 106, 120, ENDERLEIN S.B. Ges. naturf. Fr. Berl. 1941 1942.

*Platynostira gen. n.*, *turbata sp. n.* Transvaal pp. 99, 107, ENDERLEIN t.c.

*Plectrobrachis gen. n.* pp. 106, 126, *filigena sp. n.* Sumatra pp. 106, 127, ENDERLEIN t.c.

*Porpedrum gen. n.* pp. 104, 112, *fibulatum sp. n.* Brazil pp. 104, 113, ENDERLEIN t.c.

*Porpomastix gen. n.* pp. 105, 122, *fasciolata sp. n.* Ussuri pp. 105, 123, ENDERLEIN t.c.

*Rhagostina gen. n.* pp. 106, 123, *erlangeri* (type) Abyssinia pp. 106, 124, *latigena p. 124*, *nana p. 125* E. Africa, *spp. n.*, ENDERLEIN t.c.

*Sestroptera gen. n.* for *Epicerella multipunctata* Mall. p. 100, ENDERLEIN op. cit. 1941 1940.

*Siridapha gen. n.* pp. 105, 114, *ophionea* (type) pp. 105, 115, *filipalpis p. 115 spp. n.* Cameroons, ENDERLEIN op. cit. 1941 1942.

*Stirotirinx gen. n.*, *cribratus sp. n.* Mexico pp. 102, 110, ENDERLEIN t.c.

*Stypina gen. n.* for *vesicatoria* Hend. 1912 p. 105, ENDERLEIN t.c.

*Taeniomastix gen. n.* for *Apyrgota pictiventris* Hend. (type) p. 104, *A. unicolor* Hend., *A. pubiseta* Hend.; *sumatrana sp. n.* Sumatra p. 113, ENDERLEIN t.c.

*Teliophleps gen. n.*, *apicalis sp. n.* Borneo pp. 107, 128, ENDERLEIN t.c.

*Trichempodia trifasciata sp. n.* Madagascar p. 109, ENDERLEIN t.c.

*Trichopeltia gen. n.*, *penicillatocoxis sp. n.* Sumatra pp. 106, 121, ENDERLEIN t.c.

*Tropidothrinax gen. n.* pp. 105, 115, *boliviensis sp. n.* Bolivia pp. 105, 116, ENDERLEIN t.c.

MICROPEZIDAE (NERIIDAE, TYLIDAE).

British Micropezidae, COLLIN Ent. Rec. 57 pp. 115-119.

*Calycopteryx moseleyi* ♂ ♀, early stages pp. 254-259 figs., SÉGUY Mém. Mus. H. n. Paris (N.S.) 14 1940.

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*Loxocera albiseta* early stages p. 286 figs., DE MEIJERE Ent. Ber. Amst. 10 1941.

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*Epimadiza fascipennis* sp. n. Nyasaland p. 460 fig., SABROSKY Proc. zool. Soc. Lond. 114.

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*Hippelates* keys pp. 338-342; *benoisti* p. 343, *flavus* p. 346 Ecuador, *brumpti* Venezuela p. 344, *escomeli* Peru p. 346, *microtrogus* Costa Rica p. 348, *nabis* p. 349, *simulator* p. 353 Cuba, spp. n. figs., SÉGUY Mém. Mus. H. n. Paris (N.S.) 13 1940.

*Mimogaurax* see *Pseudogaurax*.

*Pachylophus proximus* (= *bellulus* Curr.) p. 460 (with var. n. *punctifemur* Tanganyika p. 459), SABROSKY Proc. zool. Soc. Lond. 114.

*Pseudogaurax* Mall. (= *Pseudogaurax* Duda, *Mimogaurax* Hall) discussion of name; synopsis of Neotropical and African spp. with much synonymy p. 458, key to African spp. p. 489; *elachipteroides* sp. n. Nigeria p. 456 figs., SABROSKY t.c.—P. Duda see P. Mall.

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Systematic arrangement of genn. & spp. of Indo-Australian Psilopinae (key to genn. p. 73), CRESSON Trans. Amer. ent. Soc. 71 pp. 47-75.

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*Allotrichoma strandi* p. 7, *impudicum* p. 9, spp. n. Germany figs., DUDA Dtsch. ent. Z. 1942 1942.

*Amalopteryx maritima* ♂ ♀, early stages pp. 260-264 figs., SÉGUY Mém. Mus. H. n. Paris (N.S.) 14 1940.

*Athyroglossa ordinata* see *Stranditrichoma*.

*Ceropsilopa* Cress. (= *Pelez* Cress.) p. 70, CRESSON Trans. Amer. ent. Soc. 71.

*Disclasiopa strandi* sp. n. Germany p. 21, DUDA Dtsch. ent. Z. 1942 1942.

*Discocerina nigrithorax* see *Strandiscocera*.

*Ephydra strandi* sp. n. Germany p. 28, DUDA Dtsch. ent. Z. 1942 1942.

*Eupsilopa* see *Trypetomima*.

*Gymnopa paucula* see *Gymnopiella*.

*Gymnopiella* gen. n. for *Gymnopa paucula* Cress. p. 52, CRESSON Trans. Amer. ent. Soc. 71.

*Hostis* gen. n., *guamensis* sp. n. Guam p. 64, CRESSON t.c.

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*Hydrina strandi* sp. n. Germany p. 22, DUDA Dtsch. ent. Z. 1942 1942.

*Napaea obscuripennis* p. 37, *strandi* p. 38, *albifacies* p. 39, spp. n. Germany fig., DUDA t.c.

*Pelez* see *Ceropsilopa*.

*Philotelma strandi* sp. n. Germany p. 32, DUDA Dtsch. ent. Z. 1942 1942.

*Scatella* (*Stranditella* subgen. n.) p. 30, *strandi* sp. n. Germany p. 31 fig., DUDA t.c.

*Scatophila variegata* varr. n. *inanis*, *strandi* Germany p. 35, DUDA t.c.

*Strandillus* gen. n., *strandi* sp. n. Germany p. 10, DUDA t.c.

*Strandiscocera* gen. n. for *Discocerina nigrithorax* Beck. (type) p. 15; *buccalis* p. 16, *strandi* (with var. n. *amoena*) p. 17 spp. n. Germany, DUDA t.c.

*Stranditella* subgen. n. (type *quadrata* Fall.) see *Scatella*.

*Stranditrichoma* gen. n. for *Athyroglossa ordinata* Beck. p. 13, DUDA Dtsch. ent. Z. 1942 1942.

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*Trimerogastra* Hend. (= *Tetramerogastra* Hend.) p. 51, CRESSON Trans. Amer. ent. Soc. 71.

*Trypetomima* Meij. (= *Eupsilopa* Mall.) p. 66; *completa* Cress. (= *E. fascipennis* Mall.) p. 67, CRESSON t.c.

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*Amiota albavictoria* sp. n. Mexico p. 13 fig., PATTERSON & MAINLAND Univ. Texas Publ. no. 4445 1944.

*Drosophila obscuroides* p. 149, *bilineata* p. 155 Italy, *ambigua* England, Italy p. 159 spp. n. figs., POMINI Boll. Ist. Ent. Bologna 12 1940.—*D. nitens* p. 38, *tigrina* p. 44, spp. n. Italy figs., BUZZATI-TRAVERSO Rend. Ist. lombardo Cl. Sci. Mat. Nat. 77 1944.—*D. persimilis*, *pseudo-obscura* discussed p. 476, STURTEVANT Ecology 24 1944.—*D. subobscura* nomenclature discussed p. 53, further description p. 55; *séguyi* n. n. for *subobscura* Ség. nec Collin p. 56, SMART Proc. R. ent. Soc. Lond. (B) 14.—*D. (D.) laticola* sp. n. Minnesota p. 102, PATTERSON Univ. Texas Publ. no. 4445 1944.—*D. montana*, *laticola* and group *virilis* discussed pp. 194-211, PATTERSON & GRIFFEN Univ. Texas Publ. no. 4445 1944.—*D. (Siphlodora subgen. n. p. 25), (S.) subsigmoides* pp. 18, 26 (*Sophophora*) *sucinea* pp. 18, 31, (*S.*) *toleca* p. 32 [as *tolteca* p. 19], (*D.*) *crocina* pp. 20, 34, (*D.*) *anceps* pp. 21, 39, (*D.*) *canapalpa* pp. 20, 40, (*D.*) *fulvimacula* pp. 21, 42, (*D.*) *hexastigma* pp. 22, 43, (*D.*) *racemosa* pp. 21, 44, (*D.*) *aurea* pp. 23, 46, (*D.*) *capnoptera* pp. 23, 47, (*D.*) *rubidifrons* pp. 23, 48, (*D.*) *spadicifrons* pp. 23, 49, (*D.*) *canalina* pp. 24, 50, (*D.*) *castanea* pp. 24, 51, (*D.*) *crassa* pp. 24, 52, (*D.*) *macropolia* pp. 24, 54, (*D.*) *pollinospadix*, (*D.*) *setapex* pp. 24, 55, spp. n.; *pallidipennis* subsp. n. *centralis* pp. 18, 57 Mexico figs., PATTERSON & MAINLAND Univ. Texas Publ. no. 4445 1944.

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*Neomaorina* n. n. for *Maorina* Mall. nec Pilsb. p. 72, MILLER Proc. R. ent. Soc. Lond. (B) 14.

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*Rhamphixius championi* further description p. 254, CALDWELL Ohio J. Sci. 44 1944.

*Vincentia* Uhl. not synonym of *Cixius* Latr. p. 133; *hewanorae* St. Lucia, *christopheri* St. Kitts p. 139, *grenadana* Grenada spp. n.; *substigmatica* Leth. from *Diacira* p. 140 figs., FENNAH Proc. biol. Soc. Wash. 58.

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*Burnilia spinifera* sp. n. Br. Guiana p. 429 figs., FENNAH Proc. U.S. nat. Mus. 95 no. 3184.

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*Debeauxoecus* gen. n. for *Philopterus claviformis* Piag. p. 126, CONCI Boll. Soc. ent. ital. 73 1941.

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*Dimorphiventer* gen. n. for *Colpocephalum spineum* Kellogg p. 60, EICHLER Dtsch. ent. Z. 1943 1943.

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*Ethiopterum kea*, *albidum*, *circumfasciatum*, *interruptofasciatum*, *strepsicercum* see *Psittacicola*.

*Eutrichophilus cercolabes* Mjöb. (= *australis* Ewing) p. 119; *mexicanus* Rudow (= *coëndu* Stobbe) p. 122; *moojeni* sp. n. (on *Chaetomys subspinosus*) Brazil p. 143 figs., WERNECK Mem. Inst. Oswaldo Cruz 42.—*E. genetiae* see *Fastigatosculum acuticeps*.

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*Glareolites* gen. n. for *Nirmus ellipticus* Nitzsch p. 80 fig., EICHLER Stettin. ent. Ztg. 105 1944.

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*Goniodes ovoidalis* sp. n. (on *Ortyx californica*) no locality p. 47 fig., KÉLER t.c.—*G.* and allied genn. from gallinaceous hosts pp. 355–399; *colombianus* (on *Colinus cristatus decoratus*) p. 356 (with subspp. *latafasciatus* (on *C. c. leucotis*)) Colombia, *nebraskensis* (on *Pedioecetes phasianellus campestris*) Nebraska p. 357, spp. n.; *lagopi* subspp. n. *greenlandicus* (on *Lagopus mutus reinhardi*) Greenland p. 359 figs., CARRIKER Rev. Acad. colombiana 6.—*G. cervinicornis*, *longus* see *Gonotyles*; *dispar*, *truncatus* see *Solenodes*; *dissimilis* see *Oulocrepis*; *eurygaster* see *Margaritenes*; *eximius* see *Chelopistes*; *flavus* see *Campanulotes*; *isogenos* see *Stenocrotaphus*; *lativentris* see *Nitzschia*; *latus* see *Kodocephalon*; *numidianus* see *Colinicola*; *orthopleurus*, *curvicornis* see *Pachyskelotes*.

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*Gonotyles* gen. n. for *Goniodes cervinicornis* Gbl. (type) p. 48, *G. longus* Rud. p. 52 figs., KÉLER t.c.

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*Homocerus* gen. n. for *Goniocotes macrocephalus* Taschenb. (type) p. 117, *G. minor* Piag. p. 120, *G. fissus* Rudow p. 123 figs., KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

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*Kélerimenopon* gen. n. p. 262, *santfilippoi* sp. n. (on *Tropidorhynchus novae guineae*) New Guinea p. 263 fig., CONCI Ann. Mus. Genova 61 1942.



*Kelloggia brevipes* subsp. n. *serrati* (on *Tinamus s. serratus*) Amazonas p. 22 figs., GUIMARÃES Papéis avulsos Dep. Zool. S. Paulo 2 1942.

*Kodocephalon* gen. n. for *Goniodes latus* Piag. (type) p. 73, *Goniocotes discogaster* Taschenb. p. 77 figs., KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

*Labicotes* gen. n. for *Goniocotes guttatus* Taschenb. p. 171 figs., KÉLER t.c.

*Laemobothrion* spp. notes pp. 207-213; *hieraaeti* (on *Hieraaetus pennatus*); *bureschi* (on *Pandion haliaetus*) p. 209, *bulgaricum* (on *Gyps fulvus*) p. 210, spp. n. Bulgaria figs., EICHLER Mitt. naturw. Inst. Sofia 16 1943.—*L. eidmanni* sp. n. (on *Gymnogenys typicus pectoralis*) Spanish Guinea p. 14 figs., EICHLER Mitt. dtsh. ent. Ges. 11 1942.—*L. mjobergi* sp. n. (on *Haliastur indus intermedius*) Sumatra ? p. 64 figs., EICHLER Dtsch. ent. Z. 1943 1943.

*Lagopoecus docophoroides* see *Colinicola*.

*Lipeurus albidus* & other spp. see *Neopsittaconirmus*; *circumfasciatus* see *Pflegeriella*; *quadripunctatus* see *Falcolipeurus perspicillatus*.

*Lutridia exilis* ♂ p. 78 fig., CONCI Boll. Soc. ent. ital. 72 1940.

*Lyneon cummingsi* sp. n. (on *Bradypus tridactylus*) Costa Rica p. 111, EICHLER Mitt. dtsh. ent. Ges. 11 1943.

*Margaritenes* gen. n. for *Goniodes eurygaster* Piag. p. 132 fig., KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

*Meganarion* see *Cebidicola*.

*Meliphagoecus* gen. n. for *Philoptyerus setosus* Piag. p. 127, CONCI Boll. Soc. ent. ital. 73 1941.

*Menacanthus cornutus* further description p. 225 figs., HOHORST Senckenbergiana 25 1942.—*M. mutabilis* (on *Sturnus vulgaris vulgaris*) pp. 31, 78, *subs similis* (on *Parus coerules satunini*) pp. 33, 79, *remizae* (on *Remiza pendulina pendulina*) pp. 34, 80, *cettiae* (on *Cettia cetti interposita*) pp. 35, 80, *minusculus* (on *Turdus phylomelos phylomelos*) pp. 36, 81, *tenuifrons* (on *Troglodytes troglodytes hyrcanus*) pp. 37, 81, spp. n. Azerbaijan figs., BLAGOVESHCHENSKIĭ Mag. Parasit. 8 1940.

*Menopon nyrocae* (on *Nyroca ferina*) pp. 25, 76, *rotundifrons* (on *Circus aeruginosus aeruginosus*) pp. 28, 77 spp. n.; *leucoxanthum* var. n. *marecae* (on *Mareca penelope*) pp. 27, 77 Azerbaijan figs., BLAGOVESHCHENSKIĭ Mag. Parasit. 8 1940.—*M. serini* (on *Serinus canaria serinus*) p. 80, *upupae* (on *Upupa epops*) p. 100, spp. n. France figs., SÉGUY Faune de France 43 1944.—*M. alternatum*, *zonatum* see *Falcophilus*; *cinerea* see *Australmenopon*; *robsoni* see *Corvomenopon*.

*Menoponoidea superfam.* n. p. 6, KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

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*Meropsiella* gen. n. for *Degeeriella apiastri* Denny p. 104 figs., CONCI t.c.

*Microctenia soaresi* sp. n. (on *Crypturellus n. notivagus*) Brazil p. 111 figs., GUIMARÃES Papéis avulsos Dep. Zool. S. Paulo 4 1944.

*Mjöberginirmus* gen. n. for *Nirmus obliquus* Mjöb. *citrinus* Nitzsch p. 81, EICHLER Stettin. ent. Ztg. 105 1944.

*Myrsidea aegithali* sp. n. (on *Aegithalos caudatus alpinus*) Azerbaijan pp. 39, 81 figs., BLAGOVESHCHENSKIĭ Mag. Parasit. 8 1940.—*M. chiapensis* sp. n. (on *Oreophasis derbianus*, *Calocitta formosa azurea*) Mexico p. 204 fig., ZAVALETA An. Inst. Biol. Mexico 15 1944.—*M. franciscocoli* sp. n. (on *Cinclus c. meridionalis*) p. 287 figs., CONCI Ann. Mus. Stor. nat. Genova 61 1942.—*M. rustica* redescription pp. 127-134, 2 figs., CONCI Studi trentini Sci. nat. 23 1942.—*M. struthidea* see *Allomyrsidea*.

*Neocolpocephalum* spp. life history p. 92 fig., EICHLER Mitt. dtsh. ent. Ges. 10 1941.

*Neodasyonyx* subgen. n. (type *transvaalensis* Bedf.) see *Dasyonyx*.

*Neopsittaconirmus* gen. n. p. 37, *borgiolii* sp. n. (type) (on *Calyptorhynchus funereus*) Australia p. 38; *albidus* Piag., *circumfasciatus* Piag., *femoratus* Piag., *kea* Kellogg, *interruptofasciatus* Piag., *pallipes* Piag. from *Lipeurus* p. 37, CONCI Boll. Soc. ent. ital. 74 1942.

*Nirmocotes* see *Strongylocotes*.

*Nirmoidea* **superfam. n.** p. 6, KÉLER  
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*Nirmoides* **gen. n.** for *Docophorus antennatus* Piag. p. 81, EICHLER Stettin. ent. Ztg. 105 1944.

*Nirmus uncinus* see *Corvonirmus ellipticus* see *Glareolites*; *obliquus*, *citrinus* see *Mjöberginirmus*; *hastiformis* see *Trogoninirmus*.

*Nitzschiella* **gen. n.** for *Coloceras menaensis* Piag. (type) p. 67, *Goniodes lativentris* Uchida p. 73; *museihalensis* **sp. n.** (on *Macropygia reinwardti*) no locality p. 70 figs., KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

*Ornicholax olfersi* **sp. n.** (on *Tinamus m. major*) Brazil p. 159 figs., GUIMARÃES Papéis avulsos Dep. Zool. S. Paulo 2 1942.

*Osculotes* **gen. n.** for *Goniocotes curtus* Nitz. p. 175 figs., KÉLER Nova Acta Leop. Carol. (N.F.) 8 1939.

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*Oulocrepis* **gen. n.** for *Goniodes dissimilis* Nitz. p. 97 figs., KÉLER t.c.

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*Paleuthygramma acuta* sp. n. lower Permian, Kansas, p. 71 figs., CARPENTER t.c.

Permobiellidae position discussed p. 75, CARPENTER t.c.

*Permobiella perspicua* characters p. 75 figs., CARPENTER t.c.

*Pleisiogramma* gen. n. (Pleisiogrammidae fam. n. p. 73), *medialis* (type) p. 73, *reducta* p. 74 spp. n. lower Permian, Kansas figs., CARPENTER t.c.

*Probnis speciosa* Sell. (= *sellardsi* Handl.), characters p. 78 figs., CARPENTER t.c.

*Pseudogramma* gen. n. for *Euthygramma aberrans* Mart. p. 70, CARPENTER t.c.

Telactinopterygidae fam. n. p. 78, CARPENTER t.c.

*Telactinopteryx* transferred to Telactinopterygidae p. 78, CARPENTER t.c.

## Megasecoptera.

Additional Megasecoptera of lower Permian, Kansas, with discussion on affinities of Elmoidae and Martynoviidae, CARPENTER Proc. Amer. Acad. Arts Sci. 75 1943 pp. 55–61, 3 figs.

*Elmoa trisecta* characters p. 56 figs., CARPENTER t.c.

*Martynovia* Till. (= *Martynoviella* Till.); *insignis* p. 58, *protohymenoides* p. 59 characters, figs., CARPENTER t.c.

*Martynoviella* see *Martynovia*.

## Odonata.

Additional Protodonata of lower Permian, Kansas, CARPENTER Proc. Amer. Acad. Arts Sci. 75 1943 p. 55.

Fossil and modern families of Odonata, SCHMIDT Mitt. dtsh. ent. Ges. 11 1943 pp. 103–104.

*Eolestes synthetica* emended wing description p. 54, FRASER Proc. R. ent. Soc. Lond. (A) 20.

## Permodictyoptera.

Permodictyoptera ord. n. p. 342, ZALESSKY C.R. Acad. Sci. URSS (N.S.) 44 1944.

*Bardapteron* gen. n. (Bardapteridae fam. n.) p. 342, *ovale* sp. n. Permian, Ural Mts. p. 343 figs., ZALESSKY t.c.

## Aphelophlebia.

Aphelophlebia ord. n. p. 3, PIERCE Bull. S. Calif. Acad. Sci. 44.

*Aphelophlebodes* gen. n. (Aphelophlebotidae fam. n.) p. 3, *stocki* sp. n. Upper Miocene, California p. 4 fig., PIERCE t.c.

### Palaeodictyoptera.

*Artria mioanali* p. 38, *eurycubitalis* p. 40, spp. n. Carbon, Saar figs., GUTHÖRL Senckenbergiana 22 1940.

*Longivenapteris* gen. n. p. 52, *pulchra* sp. n. Carbon, Saar p. 53 figs., GUTHÖRL t.c.

*Macrodictya* gen. n. p. 46, *stenomediali* sp. n. Carbon, Saar p. 47 figs., GUTHÖRL t.c.

*Palapteris* gen. n. p. 41, *stenodictyus* sp. n. Carbon, Saar p. 42 figs., GUTHÖRL t.c.

*Polioptenus mancomediali* sp. n. Carbon, Saar p. 36 figs., GUTHÖRL t.c.

*Pseudocleffia* gen. n. p. 48, *palatina* sp. n. Carbon, Saar p. 49 figs., GUTHÖRL t.c.

*Rotundopteris* gen. n., *multimediali* sp. n. Carbon, Saar p. 44 figs., GUTHÖRL t.c.

*Stilbocrocis lanceolata* sp. n. Carbon, Saar p. 51 figs., GUTHÖRL t.c.

### ERRATA.

Vol. lxxv, 1928. Psyche Vol. 34 no. 6 was published in 1928 not 1927, which affects the entries on:—p. 32, No. 596, p. 293, col. 1, line 21; p. 40, No. 790, p. 178, col. 2, line 12; p. 46, No. 938, p. 418, col. 1, 4 lines from end; p. 47, No. 972, p. 291, col. 2, 19 lines from end; p. 54, No. 1143, p. 291, col. 1, 19 lines from end; p. 56, No. 1181, p. 407, col. 1, 6 lines from end, col. 2, 4 lines from end, p. 409, col. 1, 7 lines from end, col. 2, line 34; p. 60, No. 1273, p. 340, col. 2, 19 lines from end; p. 124, No. 2794, p. 312, col. 2, line 13.

Vol. lxxi, 1934, p. 217, col. 2, line 17, after "subgenn. n." insert "p. 154, SEMENOV-TIAN-SHANSKIÏ"

Vol. lxxii, 1935, p. 335, col. 2, for "*Mesocidalia*" read "*Mesoacidalia*" and transfer to NYMPHALIDAE.

Vol. lxxvi, 1939, p. 113, No. 2355 for "pp. 221-252" read "pp. 221-228" and add "40 1939 sep. pp. 229-252"; p. 213, col. 2, line 30, after "p. 226" add "39 1938," and line 33 after "p. 231" add "40 1939" and delete "39 1938"

Vol. lxxviii, 1941, p. 202, col. 1, 21 lines from end, for "*diffusa* Lw." read "*diffusa* Snow p. 4." The entry under *Dacus* should read "*armatus* var. n. *theophrastus* Togo; *bombastus* Mombasa p. 5, *phantoma*, *radmirus* Kamerun p. 6 spp. n. figs., HERING t.c." After *Hexaresta* insert "gen. n. p. 18"

Vol. lxxviii, 1941, p. 225, col. 1, 19 lines from end and throughout, for "103" read "130"

Vol. lxxx, 1943, p. 21, No. 257, for "23 figs." read "29 figs."

Vol. lxxx, 1943, p. 46, No. 788, p. 102, col. 1, line 12 & p. 213, col. 2, line 3, for "KNECHTE" read "KNECHTEL"; for "pp. 287-307" read "pp. 289-307" and for "13 1941" read "13 (1941) 1943"

Vol. lxxx, 1943, p. 140, col. 2, 16 lines from end for "*subumbalis*" read "*sublimbalis*"

Vol. lxxx, 1944. Canad. Ent. 76 no. 11 was published in 1945 and not 1944, which affects the entries on:—p. 10, No. 23 (pp. 217-22), p. 198, col. 1, lines 29-31, p. 199, col. 1, 4 lines from end, col. 2, line 15-19; p. 25, No. 353, p. 170, col. 1, 7 lines from end, col. 2, lines 2, 24, 37; p. 31, No. 480, p. 174, 17 lines from end; p. 42, No. 721, p. 201, col. 2 (*Heteromydas*, *Bromleyus* gen. n.); p. 85, No. 1647.

Vol. lxxx, 1944. Bull. Soc. ent. France 1944 pt. 4-5 was published in 1945 not 1944, which affects the entries on:—p. 25, No. 362, p. 236, col. 2 (*Speleotettix* gen. n.); p. 27, No. 391, p. 244, col. 1, line 15; p. 40, No. 689; p. 45, No. 785; p. 52, No. 935, p. 219, col. 2, lines 2 & 12; p. 54, No. 979; p. 66, No. 1233.

Vol. lxxxi, 1944. Rev. brasil. Biol. 3 pt. 4 was published in 1944 not 1943 and Vol. 4 pt. 4 in 1945 not 1944, which affects the entries on :—p. 24, No. 327, p. 228 (*Epicolinus* gen. n.), p. 229 (*Oxylipeurus*): No. 331, p. 217, col. 1 (*Sericophanes*); p. 33, No. 516; p. 41, Nos. 701, 702, p. 147 (*Mastosthetus*, *Dacrys*) & line 10; p. 53, No. 971, p. 214 (*Aradomorpha*): p. 60, No. 1116, p. 212, col. 2, line 30; p. 81, No. 1548 (3 pp.) 453–472; 4 pp. 439–451), p. 173 (*Automolis*, *Cresera*, *Lepidokirbyia* n. n., *Rhipha*): p. 87, Nos. 1699, 1703, p. 212, col. 2, line 30, p. 215, col. 1 (*Mayemesa* gen. n., *Stenolemus*); No. 1702, p. 243, col. 1 (*Campodea*).

Vol. lxxxi, 1944, p. 10, No. 29, for “Part IV” read “Part V”

- “ “ “ p. 34, No. 541 and p. 220, col. 1, 2 lines from end and throughout, the volume was published in 1944, the preprint in 1942.
- “ “ “ p. 143, col. 1, 4 lines from end, insert “HUSTACHE in” before “VAYSSIÈRE”
- “ “ “ p. 167, col. 2, line 3, for “*Pleuronema*” read “*Pleuroneura*”
- “ “ “ p. 172, col. 2, for “*Pholisura*” read “*Pholisera*”
- “ “ “ p. 178, col. 1, transfer *Epicoma* to LYMANTRIIDAE
- “ “ “ p. 179, col. 2, and p. 180, col. 1, transfer *Eutane* and *Poliodule* to ARCTIIDAE
- “ “ “ p. 182, col. 1, transfer *Strymon* to LYCAENIDAE
- “ “ “ p. 184, col. 2, 13 lines from end, for “(*Panopsia* Turn.)” read “(*Panopsia* Turn. nom. nud.)”
- “ “ “ p. 185, col. 1, for “*Styphylolepis*” read “*Styphlolepis*”
- “ “ “ p. 202, col. 2, for “*Callistigma*” read “*Calostigma*”
- “ “ “ p. 206, transfer “*Eumacronychia*” to CALLIPHORIDAE





# 14. PROTOCHORDATA

INCLUDING

## ENTEROPNEUSTA AND PTEROBRANCHIA

BY

M. BURTON, D.Sc.

### I.—TITLES.

1.—**Opinion 7.** On the interpretation of the expression "n.g., n.sp." under Article 30 (a) of the International Code, as respects generic names published on, or before 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* 1 16 1945 pp. 139–146.

2.—**Opinion 8.** On the retention of "ii" or "i" in specific patronymic names, under Article 14, third paragraph, and Article 19 of the International Code. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 17 1945 pp. 147–158.

3.—**Opinion 9.** The use of the name of a composite genus for a component part requiring a name, where the name so used was published on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 18 1945 pp. 159–170.

4.—**Opinion 10.** The designation of genotypes for genera published with identical limits, on, or before, 31st December, 1930. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 1 19 1945 pp. 171–178.

5.—**Opinion 138.** On the method by which the Amendment to Article 25 of the International Code adopted at the Budapest Meeting of the International Zoological Congress, relating to the Replacement of Invalid Names, should be interpreted. *Opinions rendered Internat. Comm. Zool. Nomencl.* 2 1942 pp. 29–34.

6.—**Opinion 141.** On the principles to be observed in interpreting Article 4 of the International Code relating to the naming of families and subfamilies. *Opinions rendered Internat. Comm. Zool. Nomencl.* 2 1943 pp. 55–66.

7.—**Opinion 148.** On the principles to be observed in interpreting Articles 25 and 34 of the International Code in relation to the availability of generic names proposed as emendations of, or as substitutes for, earlier generic names of the same origin and meaning. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* 2 1943 pp. 133–144.

8.—**Opinion 164.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the types of genera when two or more genera are united on taxonomic grounds. *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 2 34 1945 pp. 347–358.

9.—**Opinion 168.** On the principles to be observed in interpreting Article 30 of the International Code in relation to the name of genera based upon erroneously determined species (*Opinion* supplementary to *Opinion* 65). *Opinions and Declarations Internat. Comm. Zool. Nomencl.* London 2 38 1945 pp. 411–430.

10.—**Opinion 191.** On the question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to students or colleagues constitutes "publication" within the meaning of proviso (a) to Article 25 of the Inter-

national Code. Opinions and Declarations Internat. Comm. Zool. Nomencl. London 3 10 1945 pp. 129-136.

11.—Opinion. On the status of a generic name proposed as an emendation of a previously published generic name, where the earlier published of the two generic names is later found to be invalid by reason of being a homonym or otherwise. Opinions and Declarations Internat. Comm. Zool. Nomencl. London 2 30A 1945 pp. (11)-(13).

12.—Andresen, N., Holter, H. & Zeuthen, E. The respiration of syncytia, formed by abnormal development of *Ciona* eggs. C.R. Lab. Carlsberg Copenh. Sci. Chim. 25 1944 pp. 67-84 7 figs.

13.—Antipa, G. Marea Neagră. Pub. Fond. Acad. Română Bucuresti 10 (55) 1941 [Protochordates p. 230].

Aujar, R. G. see Nair, R. V.

14.—Berrill, N. J. The development of the bud in *Botryllus*. Biol. Bull. Woods Hole. 80 1941 pp. 169-184 7 figs.

15.—Berrill, N. J. Sex and morphogenesis in the bud of *Botryllus*. Biol. Bull. Woods Hole 80 1941 pp. 185-193 3 figs.

16.—Berrill, N. J. Size and organization in the development of Ascidians [in] Essays on Growth and Form Oxford 1945 [Protochordates pp. 231-263.].

17.—Bertrand, D. Le vanadium dans les Ascidies. C.R. Acad. Sci. Paris 215 (18-22) 1942 pp. 477-478.

18.—Breland, O. P. Manual of Comparative Anatomy N.Y. 1943 pp. ix, 250.

19.—Brien, P. Contribution à l'étude du bourgeonnement et de l'organogénèse du blastozoïde des Distomidae = (Polycytoridae). Ann. Soc. zool. Belge 70 1939 pp. 101-152 2 pls. 42 figs.

20.—Bullock, T. H. The anatomical organization of the nervous system of Enteropneusta. Quart. J. micr. Sci. London N.S. 86 (1) 1945 pp. 55-111 7 pls.

Chacko, P. I. see Devanesen, D. W.

21.—Das, S. M. On variations in the number of gonads and shape of dorsal tubercle in the monascidian *Styela areolata* Heller. Proc. Indian Sci. Congr. 31 (3) 1944 p. 92

22.—Das, S. M. On the alimentary canal and gonads in *Microcosmus manaarensis* Herdman, a monascidian from Madras. Proc. Indian Sci. Congr. 31 (3) 1944 p. 92.

23.—Das, S. M. On variations in the number of gonads and shape of dorsal tubercle in the Monascidian, *Styela areolata* Heller. Sci. and Culture Calcutta 10 (8) 1945 p. 356 2 text-figs.

24.—Dawdyoff, C. Quelques observations sur le développement embryonnaire d'un Balanoglosse de l'Indochine (*Saccobalanus minutus* Kow.). C.R. Acad. Sci. Paris 211 16 1940 pp. 332-335.

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28.—Devanesen, D. W. & Chacko, P. I. Balanoglossus as food of fishes. Current Sci. Bangalore 11 6 1942 pp. 242-243.

29.—Garstang, W. On the anatomy and relations of the Appendicularian, *Bathychordaeus*, based on a new species from Bermuda (*B. stygius* sp. n.). J. Linn. Soc. 40 1937 pp. 283-303 11 figs.

30.—Gudger, E. W. Amphioxii swimming in a chain. Copeia Ann. Arbor 1945 pp. 113-114 1 fig.

31.—Hessle, C. & Vallin, S. Undersökningar över plankton och dess växlingar i Östersjön under åren 1925-1927. Skr. Svenska Hydrogr. —Biol. Komm. Stockholm N.S. 1 5 1934 pp. 1-94.

32.—Holter, H. & Zeuthen, E. The respiration of the egg and embryo of the Ascidian, *Ciona intestinalis* L. C.R. Lab. Carlsberg Copenh. Sci. Chim. 25 2-3 1944 pp. 33-65 10 figs.

Holter, H. see Andresen, N.

33.—Horst, C. J. van der. Hemichordata. Bronns Klassen u. Ordnungen des Tierreichs Bd. 4 Abt. 4. Buch. 2. Teil 2. Lfg. 6 Leipzig 1939.

34.—Huus, J. The effect of light on the spawning in Ascidians. Avh. Norske Vid. Akad. Oslo Mat.-Nat. Kl. 1939 (4) pp. 1-30 2 figs.

35.—Huus, J. Effects of physical factors on the spawning in Ascidians. Temperature limits for spawning. Avh. Norske Vid. Akad. Oslo Mat.-Nat. Kl. 1941 (8) 1942 pp. 1-13.

36.—Huus, J. Effects of physical factors on the spawning in Ascidians. Temperature and latent period. Avh. Norske Vid. Akad. Oslo Mat.-Nat. Kl. 1941 (9) 1942 pp. 1-12 1 fig.

37.—Krampe, P. L. The Godthaab Expedition, 1928. Pelagic Tunicata. Medd. Grønland 80 (10) 1942 pp. 3-8 1 fig.

Ku, S. see Tung, T.

38.—Lameere, A. Les Protochordés. Rec. Inst. zool. Torley-Rousseau Bruxelles 8 1940 pp. 1-116. 117 figs.

39.—McDougall, K. D. Sessile marine invertebrates of Beaufort, North Carolina. A study of settlement, growth, and seasonal fluctuations among pile-dwelling organisms. Ecol. Monogr. Durham N.C. 13 (3) 1943 pp. 321-374 19 figs.

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43.—Morgan, T. H. Cross- and self-fertilization in the Ascidian *Molgula manhattensis*. Biol. Bull. Woods Hole 82 1942 pp. 172-177.

44.—Morgan, T. H. Do spermatozoa penetrate the membrane of self-inseminated eggs of *Ciona* and *Styela*? Biol. Bull. Woods Hole 82 1942 pp. 455-460.

45.—Morgan, T. H. Normal and abnormal development of the eggs of *Ciona*. J. exp. Zool. Philadelphia 100 1945 pp. 407-416.

46.—Morgan, T. H. The conditions that lead to normal or abnormal development of *Ciona*. Biol. Bull. Woods Hole 88 1945 pp. 50-62.

47.—Nair, R. V. & Aujar, R. G. On the Thaliacea of the Madras plankton. Current Sci. Bangalore 12 (4) 1943 pp. 121-122.

48.—Pérès, J.-M. Les cellules à pigment orange de la *Ciona*. C.R. Fac. Sci. Marseille (1) 1 (4) 1941 pp. 62-64.

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51.—Pérès, J.-M. Notes anatomiques sur *Rhodossoma verecundum* Ehrbg. (Ascidie Phlébobranche). Bull. Inst. océanogr. Monaco 857 1944 pp. 1-7 3 figs.

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53.—Pérès, J.-M. Première contribution à l'étude du sang et de la tunique des Didemnidae. Bull. Inst. océanogr. Monaco 882 1945 pp. 1-18 7 figs.

54.—Pérès, J.-M. Recherches sur l'organe neural des Ascidies aplousobranches. Bull. Inst. océanogr. Monaco 888 1945 pp. 1-12 2 figs.

55.—Purasjoki, K. J. Über das Vorkommen von *Fritillaria borealis* Lohm. (Appendicularia) im nördlichen Teil der Ostsee und in den Küstengewässern Finnlands. Comment. biol. Helsingfors 9 (10) 1945 pp. 1-8 1 fig.

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- 57.—Reinhard, E. G. *Stereobalanus canadensis* (Spengel) a little-known enteropneustan from the coast of Maine. J. Wash. Acad. Sci. **32** (10) 1942 pp. 309–311 1 pl. 2 figs.
- 58.—Reverberi, G. & Minganti, A. Risultati di esperimenti di isolamento dei quartetti animale e vegetativo dell'uovo di *Ascidella aspersa* allo stadio di otto blastomeri. Boll. Zool. Torino **13** 1942 pp. 99–107 8 text-figs.
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- 62.—Thompson, H. Pelagic Tunicates in the plankton of South-eastern Australian Waters, and their place in Oceanographic studies. Bull. Council sci. industr. Res. Australia **153** 1942 pp. 1–51 1 pl. 7 text-figs.
- 63.—Tucker, G. H. The histology of the gonads and development of the egg envelopes of an Ascidian (*Styela plicata* Lesueur). J. Morph. Philadelphia **70** 1942 pp. 81–136 5 pls.
- 64.—Tung, T., Ku, S. & Tung, Y. The development of the Ascidian egg centrifuged before fertilization. Biol. Bull. Woods Hole **80** 1941 pp. 153–168 19 figs.
- Tung, Y. see Tung, T.
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- 65.—van Cleave, H. J. An index to the Opinions rendered by the International Commission on Zoological Nomenclature. Amer. Midl. Nat. Notre Dame **30** 1 1943 pp. 223–240.
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- 68.—Watterson, R. L. Asexual reproduction in the colonial Tunicate, *Botryllus schlosseri* (Pallas) Savigny, with special reference to the developmental history of intersiphonal bands of pigment cells. Biol. Bull. Woods Hole **88** 1945 pp. 71–103 pls. i–ii 2 text-figs.
- 69.—Wells, A. L. Some notes on the plankton of the Thames Estuary. J. Animal Ecol. **7** (1) 1938 [Tunicates p. 122].
- Zeuthen, E. see Holter, H.
- Zeuthen, E. see Andresen, N.
- 70.—Zhinkin, L. Experimental studies on the larvae of Ascidia. Acta zool. Stockholm **20** 1939 pp. 211–238 16 text-figs.
- 71.—Zhinkin, L. Inflammatory response of the connective tissue in the *Amphioxus*. C.R. Acad. Sci. Moscow N.S. **45** (2) 1944 pp. 72–74 4 figs.

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COMPILED BY

E. TREWAVAS, D.Sc., N. B. MARSHALL, M.A. (Recent)  
and E. I. WHITE D.Sc. (Fossil)

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# 16. AMPHIBIA AND REPTILIA

COMPILED BY

MALCOLM A. SMITH (RECENT)

AND

W. E. SWINTON (FOSSIL)

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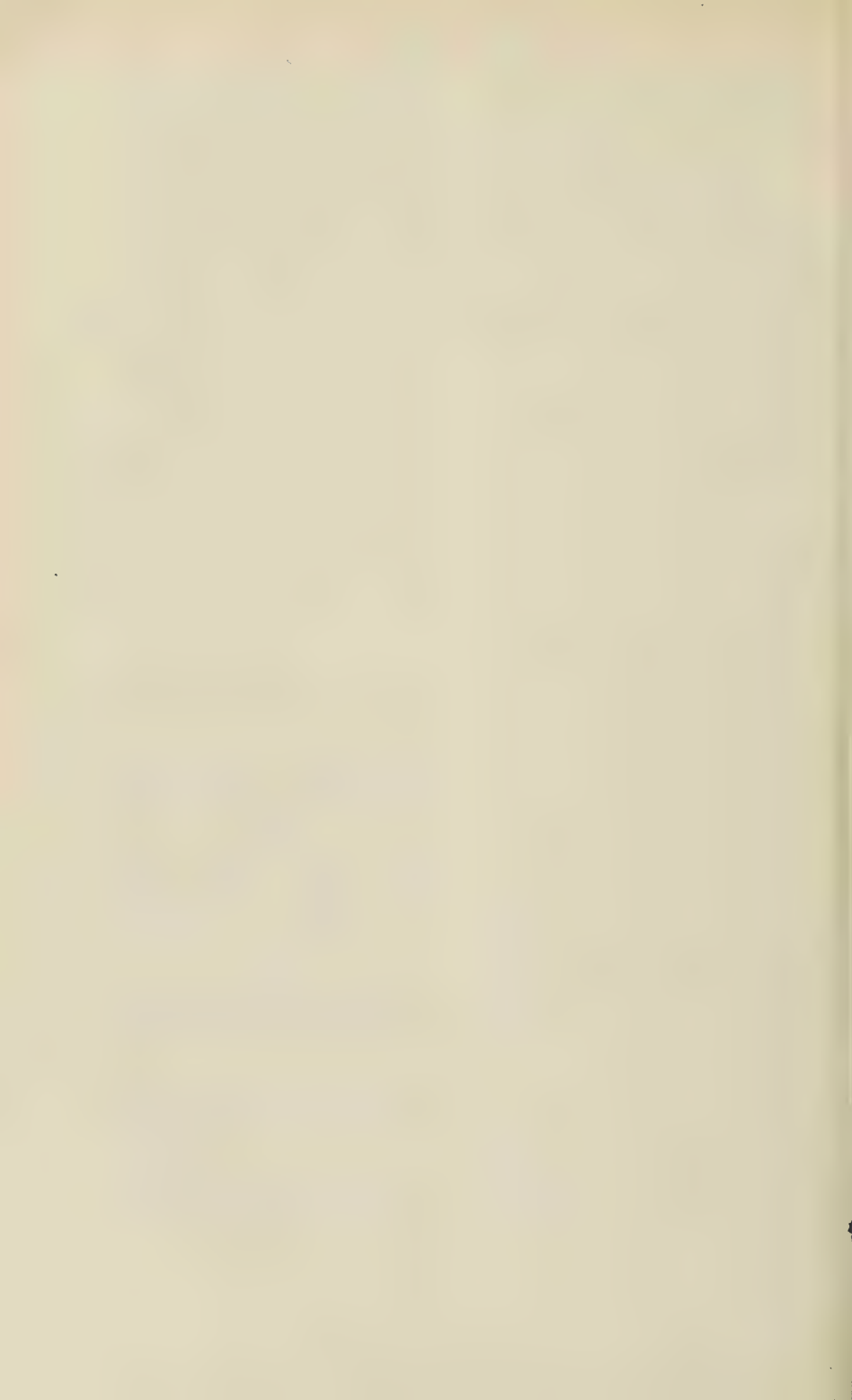
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# 17. AVES

ARRANGED BY

LT.-COL. W. P. C. TENISON, D.S.O.

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#### (a) GEOGRAPHICAL.

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**English Counties.**—BUTTERS & OTHERS 196, FITTER & OTHERS 400, McRITCHIE 800, THOMAS & OTHERS 1260; Bedfordshire, HARRISON 533; Berkshire, ALLEN 32, KIMBREY 668; Buckinghamshire, ARNOLD 45; Cheshire, ELLISON & WILSON 369, GRIFFITHS & WILSON 478, 479, TAYLOR 1250; Cornwall, AYLWIN 49, PARRINDER 951, RYVES 1084, STEVENS 1185, WYNNE 1409; Derbyshire, CHISLETT 213, HOLICK 583; Devonshire, ALLEN 31, BENNETT 95, DAWE 299, WARE 1337; Durham, BLAIR 122, TEMPERLEY 1255, 1256; Essex, BAKER 55, BOOTH 140; Gloucestershire, BOLT 132, DAVIS 291, PICKFORD 991; Hampshire, TAYLOR 1252; Hertfordshire, BELL 90, GLEGG 444, HAYWARD 546, WESTELL 1347; Kent, PAULSON & PARRINDER 954, RANKIN 1029; Lancashire, HENDERSON 557, HOLDER 580, MACLEAN 795; Leicestershire, HARRISON 533, MACLEAN 795; Lincolnshire, BROWN 172, COX 273, HARRISON 535, SCOTT 1124; London, ANON 3, FITTER 397, 398, LOW 765, LUMSDEN 773, MANSEY 814, PARRINDER & ASHEY 952; Middlesex, WARBURG 1336; Monmouthshire, CAMPBELL 204; Norfolk, HARRISON 535; Northamptonshire, ANON 5, BURTON & LEES 193, BURTON 192, HALFORD 515, LEES & SOUTHOON 728; Northumberland, COOK 258, NOEL 910, TEMPERLEY 1256; Nottinghamshire, MACLEAN 795, RAINES 1024, RAINES 1025, 1026, STATON 1178, 1179; Oxfordshire, TUCKER 1276, VAUGHAN 1303; Shropshire, LLOYD 746; Somerset, DAVIS 292, EVERSLED 382, KNOWLES 631; Staffordshire, BRYAN 174; Suffolk, COOK 253; Surrey, HARRISON 533, MARSDEN 816; Sussex, ARNOLD 44, BULMER 191, COURTENAY 272, HARRISON & MOORE 532, HAYWARD 547, TICEHURST 1254; Warwickshire, PAIGE 933; Wiltshire, ANON 4, TAYLOR 1252; Worcestershire, GRUBB 493, NEWBERY 893; Yorkshire, CHISLETT 214, EDWARDS 360, GARNETT 419, LORD & AINSWORTH 760, MACLEAN 795, WARE 1337.

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**Channel Islands.**—Jersey, DOBSON 326, 327, GRUCHY 500.

**Ireland, North and Eire.**—BENINGTON 94, RUTLEDGE 1082, STENDALL 1184; Co. Down, DUNLEATH 345; Co. Galway, GOUGH 464, RUTLEDGE 1083; Co. Londonderry, NASH 887; Co. Louth, HUMPHREYS 598; Co. Mayo, BARLEE & RUTLEDGE 65, 66, RUTLEDGE 1083; Co. Wicklow, HUMPHREYS 599.

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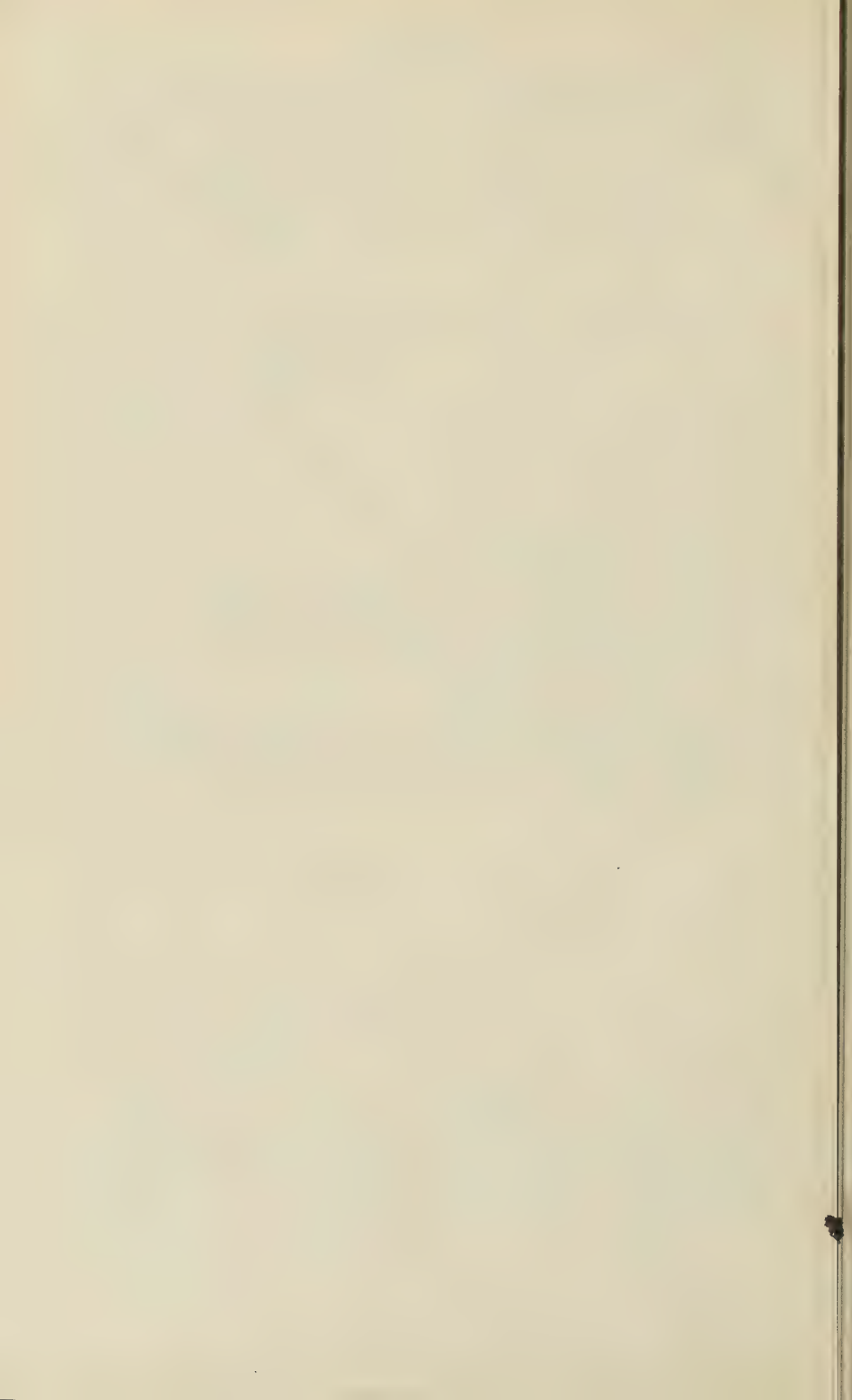
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# 18. MAMMALIA

ARRANGED BY

R. W. HAYMAN

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*Gelachernes Beier* Arach. 84  
*Georgiomyx Paraskavidis* Mamm. 80  
*Gerrisella Poisson* Ins. 316  
*Gertschia Kaston* Arach. 80  
*Gilsonicaris Straelen* Crust. 32  
*Glantonogyra Yen* Moll. 58  
*Glaphyrius Bernhauer* Ins. 170  
  
*Glareolites Eichler* Ins. 331  
*Glauertichthys Whitley* Pisc. 54  
*Glenniea Turk* Arach. 116  
*Glossinulus Schmidt* Brach. 14  
*Glyphocuma Hale* Crust. 31  
*Glyptoleda Fletcher* Moll. 77  
*Glysteroides Roewer* Arach. 89  
*Gnathogobius Smith* Pisc. 56  
*Gnathomyzon Crowcroft* Verm. 103  
*Gnomognathus Attems* Arach. 116  
*Gnophopsodes Wehrli* Ins. 267  
*Gnus Rubtzov* Ins. 280  
*Gobicula Ginsburg* Pisc. 56  
*Gobiculina Ginsburg* Pisc. 56  
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*Goldringia Flower* Moll. 92  
*Goniophylla Turner* Ins. 262  
*Gonionaedyceras Flower* Moll. 92  
*Gonodrepanoides Schubart* Arach. 116  
*Gonogotus Roewer* Arach. 89  
*Gonographis Schubart* Arach. 116  
*Gonoplasius Sandars* Verm. 103  
*Gourisinia Reichel* Prot. 59  
*Goya Mello-Leitão* Arach. 80  
*Gracilicera Miller* Ins. 298  
*Gramminopleurus Bernhauer* Ins. 170  
*Graphepleurus Clark* Echin. 9  
*Griphocrinus Kirk* Echin. 11  
*Gryllocola Basir* Verm. 128  
*Gryllophila Basir* Verm. 128  
*Guerrobunus Goodnight & Goodnight* Arach. 87  
*Gwyneddosaurus Bock* Rept. 39  
*Gymnochthebius d'Orchymont* Ins. 183  
*Gymnophyllum Howell* Coel. 28  
*Gymnopiella Cresson* Ins. 305  
*Gymnosaurichthys Berg* Pisc. 44  
*Gyndesops Roewer* Arach. 89  
*Gyroneaedyceras Flower* Moll. 92  
  
*Habrocythere Triebel* Crust. 41  
*Habrodesmoides Attems* Arach. 116  
*Hahnioops Roewer* Arach. 67  
*Halammovortex Karling* Verm. 95  
*Halectinosoma Lang* Crust. 36  
*Haloschizopera Lang* Crust. 36  
*Halticorhaea Csiki* Ins. 226  
*Hammeria Sellinck* Arach. 97  
*Handianus Ribaut* Ins. 323  
*Hangethellia Karling* Verm. 95  
*Haplochiropus Attems* Arach. 116  
*Haplotypa Janse* Ins. 274  
*Hararbdella Sciacchitano* Verm. 159  
*Harpachylus Roewer* Arach. 89  
*Harpacticellus Verhoeff* Arach. 111  
*Harpaleocyon Hürzeler* Mamm. 74  
*Haplota Marcus* Bry. 17  
*Hearlea Rubtzov* Ins. 280  
*Hebridochernes Beier* Arach. 85

- Hebrusella Poisson* Ins. 315  
*Heikenterella Csiki* Ins. 226  
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*Helenoniscus Legrand* Crust. 29  
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*Heliosestarium Campbell & Clark* Prot. 61  
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*Helophis de Witte & Laurent* Rept. 44  
*Hemathlophorus Malaise* Ins. 248  
*Hemicardiacus Plummer* Ins. 321  
*Hemicyptodesmus Schubart* Arach. 116  
*Hemicytherura Elofson* Crust. 41  
*Hemisiella Moure* Ins. 232  
*Hemiteleaspis Westoll* Pisc. 40  
*Herella Charan* Moll. 85  
*Heringijana Bhasin* Ins. 266  
*Hesa Richter* Trilo. 17  
*Hesium Ribaut* Ins. 323  
*Hesperaleyrodes Sampson* Ins. 326  
*Hesperocystis Sinclair* Echin. 13  
*Heterixalus Laurent* Amph. 38  
*Heteroclubiona Lohmander* Arach. 78  
*Heterocyprides Elofson* Crust. 41  
*Heterocythereis Elofson* Crust. 42  
*Heterodytes Houlbert* Ins. 166  
*Heterolaophonte Lang* Crust. 36  
*Heteropellis Laurent* Amph. 38  
*Heteropsyllus Scott* Crust. 36  
*Heterozelotes Lohmander* Arach. 75  
*Hexamerinx Enderlein* Ins. 304  
*Hexaresta Hering* Ins. 302  
*Hibernaspis Obrucher* Pisc. 40  
*Hindeoceras Flower* Moll. 92  
*Hiotrombidium Womersley* Arach. 97  
*Hipparionoceras Flower* Moll. 92  
*Hirschmannia Elofson* Crust. 42  
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*Hodopoeus Pilsbry & Cockerell* Moll. 76  
*Holcotrombidium Womersley* Arach. 98  
*Holocrinus Kirk* Echin. 11  
*Homocerus Kéler* Ins. 331  
*Homoeothrix Hering* Ins. 302  
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*Hoplepicharis Moure* Ins. 232  
*Hoplitesmus Chamberlin* Arach. 116  
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*Hyalodictyon Fennah* Ins. 317  
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*Hylotastella Fisher* Ins. 188  
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*Ictericoles Hering* Ins. 303  
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*Iquitosa Fennah* Ins. 319  
*Iquitosa Roewer* Arach. 90  
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*Jemtella Thorslund* Trilo. 18  
*Jighas Roewer* Arach. 90  
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*Jovanella An-der-Lan* Verm. 95  
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*Kiusiumum Verhoeff* Arach. 116  
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*Woosteroceras Ulrich, Foeste, Muller & Unklesbay* Moll. 100  
*Wygodzinskyia Soares & Soares* Arach. 93  
  
*Xanthemisia Moore* Ins. 233  
*Xanthepicharis Moure* Ins. 233  
*Xanthoconalia Francisco* Ins. 195  
*Xanthorrhina Ringdahl* Ins. 302  
*Xenambassis Schultz* Pisc. 53  
*Xenochernes Feio* Arach. 86  
*Xenoditha Chamberlin & Chamberlin* Arach. 86  
*Xenogomphus Needham* Ins. 338  
*Xenogona Jeannel* Ins. 166  
*Xenosoma Chamberlin* Arach. 122  
*Xenurobrycon Myers & Miranda* Pisc. 47  
*Xylotosyrphus Hull* Ins. 348  
  
*Yabotichthys Herre* Pisc. 56  
*Yangambia Schouteden* Ins. 315  
*Yobius Chamberlin* Arach. 112  
*Ypirangathemis Dias dos Santos* Ins. 338  
*Yunnanosaurus Young* Rept. 39  
  
*Zaburina Saylor* Ins. 201  
*Zebrascia Verhoeff* Crust. 30  
*Zemiodes Eichler* Ins. 334  
*Zenkevitchia Birstein* Crust. 28  
*Zenocuma Hale* Crust. 31  
*Zikanapis Moure* Ins. 233  
*Zinazonium Chamberlin* Arach. 122  
*Zodiolestes Riggs* Mamm. 74  
*Zystrognophos Wehrli* Ins. 268

## ADDENDA AND CORRIGENDA TO MOLLUSCA IN VOL. 82

- |  |  |
|--|--|
| Allogona not Allagona. 100.                        | Metapaleonucula not Metapalaeon-           |
| Anbullina not Ambulina. 100.                       | cilo. 101.                                 |
| Annularex <b>subgen. nov.</b> <i>Torre &amp;</i>   | Mrasiella not Mrassiella. 101.             |
| <i>Bartsch</i> . 100.                              | Mrasiella not Mrassiella. 101.             |
| Atraktus <i>Gardner</i> . 100.                     | Natelia not Natela. 101.                   |
| Avarua not Avana. 100.                             | Necvidena not Necoidena. 101.              |
| Calocyrtoceras <i>Foerste</i> . 101.               | Opularca not Orpularca. 101.               |
| Chedevillia not Chedvillia. 101.                   | Paoshanella not Peoshanella. 101.          |
| Dartoceras <i>Foerste</i> . 101.                   | Paramendax not Paramenda. 101.             |
| Dentimodiolus not Dentiomodiolus.                  | Perpusilla <i>Baker</i> . [omission]. 101. |
| 101.   | Pictiformes <i>Andez</i> . 101.            |
| Dysmedoma not Dysmedonea. 101.                     | Ptychorhynchoideus <i>Model</i> . 101.     |
| Ectenoceras not Ectonoceras. 101.                  | Pukeuria not Pukenia. 101.                 |
| Eoasianites new in 1933. 101.                      | Samanoetia <i>Macneil</i> . 101.           |
| Eomiodon <i>Chavan</i> . 101.                      | Sawkinsia <i>Cox</i> . 101.                |
| Epidiceras <i>Douvillé</i> . 101.                  | Sulcocyprea not Solcocyprea 101.           |
| Flemingella <i>Knight</i> . 101.                   | Tavaniotha not Tavaniothia. 101.           |
| Genitelix not Gemitelix. 101.                      | Torramurex not Torramurex. 101.            |
| Hallotheca not Halothea. 101.                      | Utterbackia new in 1927 not 1940.          |
| Henga not Honga. 101.                              | 101.                                       |
| Kororia not Kuroria. 101.                          | Waihoua not Waikoua. 101.                  |
| Kwangsispira <i>Hsü</i> . 101.                     | Zetemina not Zetomina. 101.                |
| Lissapiopsis <i>Imlay</i> not <i>Finlay</i> . 101. | Zetemina not Zetomina. 101.                |





